## DEPARTMENT OF THE ARMY TECHNICAL M

PERATOR, ORGANIZATIONAL, DIRECT SUPPORT,
GENERAL SUPPORT, AND DEPOT
MAINTENANCE MANUAL

KETTLE, HEATING, BITUMINOUS,
GASDLINE ENGINE, WHEEL MDUNTED,
2 PNEUMATIC TIRES,
165-GALLON CAPACITY
(WHITE MFG. MODEL F3M-1)
FSN 3895-442-9741

This copy is a reprint which includes current pages from Changes 1 and 3.

#### SAFETY PRECAUTIONS

Do not use a lifting device of less than a 2,000-pound capacity. Do not allow the heating kett and forth when it is suspended. Failure to observe this warning can result in damage to the equipmentary or death to persunnel.

Always release the pressure from the burner fuel tank before attempting to remove the cap. frum cap when releasing pressure. Do not use a carbon tetrachloride-type fire extinguisher or guish a bitumen liquid fire. Failure to observe this warning will cause explosions injurious tu pers

Always provide a metal-to-metal contact between the fuel container and the engine fuel talishing the fuel supply. This will prevent a spark from being generated as the fuel fluws over the m

Do not fill the engine fuel tank while the engine is in operation. Gasuline spilled on a hot er and explode, causing serious injury to personnel.

Do not attempt repairs on the puwer spray system while the engine is in uperation.

Do not operate the heating kettle with the melting tank cover upon during rain. Water containear or at operating temperature will cause explosions injurious to personnel.

HEADQUARTE DEPARTMENT OF TH

follows:

Change

Washington, D. C., 17 Sept Operator, Organizational, Direct Support

General Support, and Depot Maintenance Manual **KETTLE. HEATING. BITUMINOUS: GASOLINE ENGINE:** WHEEL MOUNTED, 2 PNEUMATIC TIRES: 165-GALLON CAPACITY (WHITE MFG. MODEL F3M-1) FSN 3895-442-9741

Inside Front Cover "FSN 4210-984-5270" is changed to read "FSN 4210-889-2221." Page i. Appendix B title is changed as follows: "BASIC ISSUE ITEM LIST AND ITEMS TROOP

TM 5-3895-334-15, 29 April 1970 is changed as

- Page 2-1. Paragraph 2-2 is superseded as follows:
- 2-2. Installation of Separately Packed Parts and Accessories a. The following items have been removed prior
  - (1) Drawoff valve (2) Thermometer

to shipment and are packed inside the kettle.

INSTALLED OR AUTHORIZED. "

- (3) Torch (4) Burner cleaning wire

Install as shown by Figure 2-1.

- (5) Valve wrench (6) Manual burner fuel hose (7) Pressure gauge
- (8) Safety valve (9) Burner handle
- (10) Starter rope (11) Spray har assembly with 2 pieces
- (12) pray bar house assembly, 15 ft lg b. The fire extinguisher will be installed
- (1) Bolt the fire extinguisher bra
- mounting plate located on the left fron kettle (observed from the towed end
- #10 machine screws 1 inch long with nu washers are required for mounting.
- (2) Place fire extinguisher in the
- fasten clamp. Page B-1. Appendix B, Basic Issue It superseded as follows:

able at direct and general support ion III. A list, in alphabetical sequence of items nance levels. ch at the descretion of the unit commander Repair parts, special tools, test equipm S assemblies which are economicall accompany the end item, but are NOT subject able at DSU and GSU activities an e turned in with the enditem. are normally furnished by supply of change basis. . Explanation of Columns b. Federal stock Number. This column inc ne following provides an explanation of columns the Federal stock number assigned to the ite ne tabular list of Basic Issue Items List, Section will be used for requisitioning purposes. and Items Troop Installed or Authorized, Secc. Description. This column indicates the I Ш item name and any additional description of the Source, Maintenance and Recoverability Code required. SMR): (1) Source code, indicates the source for the d. Unit of Measure (U/M). A 2-character d item, Source codes are: betic abbreviation indicating the amount or Erulanation

Repair parts, special tools and test equipment supplied from GSA/DSA Or Army supply system and authorized for use at indicated Repair parts, special tools and test equipment which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a

Description

minimum quantity be available in the supply (2) Maintenance code, indicates the lowest level naintenance authorized to install the listed item.

> Erpianation Crew/Operator

anetical sequence, of items which are furnished

and which must be turned in with the end item.

Items Troop Installed or Authorized List -

maintenance levels.

system.

maintenance level code is:

(3) Recoverability code, indicates whether uniceable items should be returned for recovery

tity of the item upon which the allowance based e.g., ft, ea, pr, etc. e. Quantity Furnished with Equipment Only). This column indicates the quantity of a

ponents), special tools and test eq

which are considered economicall

furnished with the equipment. f. Quantity Authorized (Items Troop In or Authorized Only). This column indicates the tity of the item authorized to be used wi

equipment. g. Illustration (BIIL Only). This column is o as follows: (1) Figure Number. Indicates the figure n of the illustration in which the item is shown.

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(2) Item Number. Indicates the callout n used to reference the item in the illustration.

Section II. BASIC ISSUE ITEMS LIST (2) r 31

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# Washington, D.C., 27.

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HEADQUART:

General Support, and Depot Maintenance Manual KETTLE, HEATING, BITUMINOUS, GASOLINE ENGINE, WHEEL MOUNTED, 2 PNEUMATIC TIRES, 165-GALLON CAPACITY

(WHITE MFG. MODEL F3M-1) FSN 3895-442-9741

Page 2-12, figure 2-6; add the follow

Both valves should be in center pe

Page 2-31, figure 2-6; add the follow

Upper valve should be in far left

lower valve in center position."

"NOTE

"NOTE

"NOTE

"NOTE

Both valves should be in far left p

-3895-334-15, 29 April 1970, is changed as fole front cover. Add: "Do not tow the kettle with ielt tank cover open. Vehicle motion can cause nen to splash out and burn personnel in the diate vicinity." "Do not operate this equip-

Page 2-14, figure 2-6; add the follow Do not operate this equipment unless fire extinguisher, FSN 4210-257-5343, or equiv-Upper valve should be in center

lent is readily available at all times."

lower valve in far left position." Page 2-15, figure 2-6; add the foll

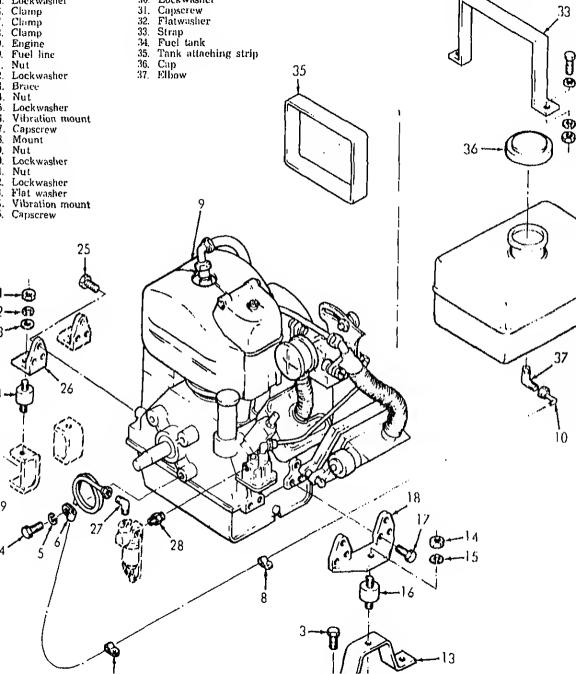
Page 2-12. After paragraph 2-11c(4), add: "WARNING Do not tow kettle with the melt tank cover

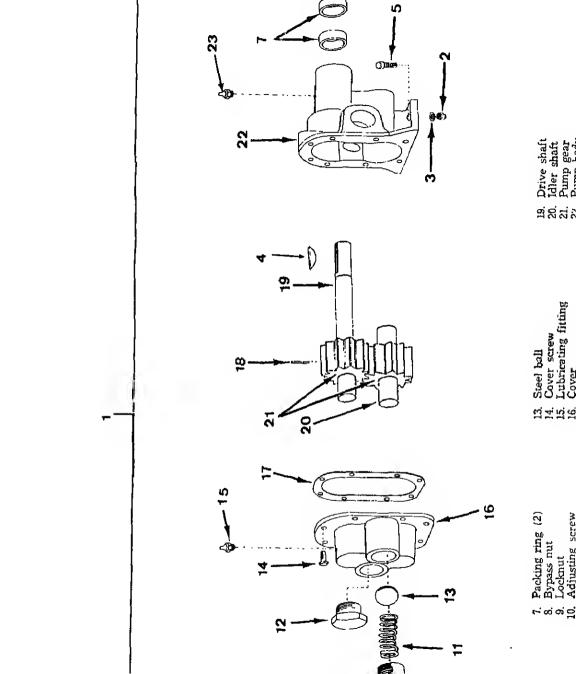
pen. Vehicle motion can cause bitumen to

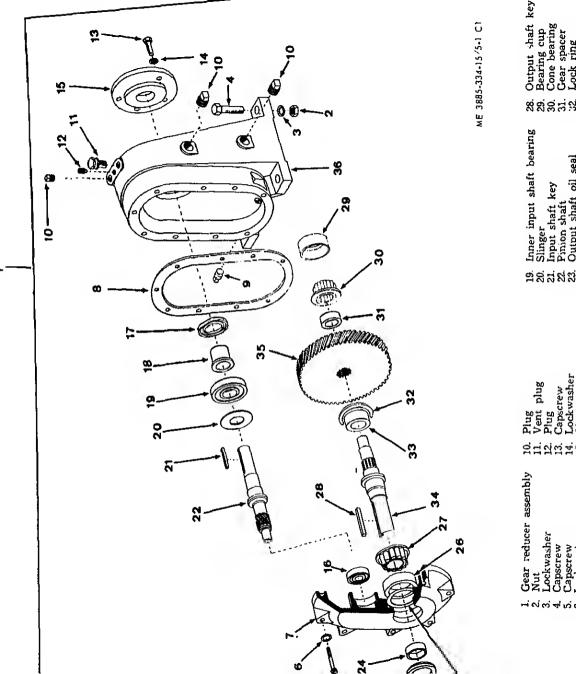
unless fire extinguisher, FSN 4210-984-5270,

uivalent is readily available at all times."

Page 2-9. After paragraph 2-11a(6), add: "CAUTION







#### Section II, BASIC ISSUE ITEMS

(1)	(3)	(3)		(4)	
	]	Description			] (
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		GROUP 01 ACCESSORIES		}	
PC	7510-889-3494	BINDER, looseleaf		ea	
PC	7520-559-9618	CASE, operator and maintenance publication	ıs	ea	1
PC	4530-478-8073	CLEANER, jet burner TK-002 (03742)		ea	
PC	4530-478-8074	TORCH, burner lighter TK-166B (03742)		ea	
	 	GROUP 02—PUBLICATIONS ARMY TECHNICAL MANUAL			
		TM 5-2805-250-14		ea	
		TM 5-3895-334-15		ea	
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ıaı: Chief of Staff. RNE L. BOWERS, ajor General, United States Army, ie Adjutant General. ibution: o be distributed in accordance with DA Form 12-25 (qty rqr block No. 421) operator maintenance requirement

Bituminous.

OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE MANUAL

3895-334-15

# KETTLE, HEATING, BITUMINOUS, GASOLINE ENGINE, WHEEL MOUNTE

DEPARTMENT OF THE

Washington, D.C., 29 Ap

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Chapter 4. SHIPMENT AND LIMITED STORAGE AND

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5-1	Gear reducer, disassembly and reassembly	
5-2	Clutch, assembly and disassembly	
5-3	Melt lank, removal	

#### Section I. GENERAL

pe

se instructions are published for the use of

onnel to whom the Model F3M-1, Bitumen

scription

-14.

Kettle is issued. They provide information peration, lubrication, and daily preventive tions for improving this publication by t ual user is encouraged. Reports should be

Section II. DESCRIPTION AND DATA

ance services of the equipment, accessories, nts, and attachments.

mbers placed in parentheses on illustrations anual indicate quantity.

eral. Model F3M-1, Bitumen Heating Kettle

and 1-2) is a self-contained, weather-resist-

gallon capacity, portable unit. It consists

le system, burner system, and power spray nd is wheel mounted. The power spray sys-

owered by a 1-cylinder Military Standard

fig. 1-2), Model 1A08-III. The unit is designed

modate, melt, and spray specified bitumi-

terials for the maintenance and repair of

d runways. The heating kettle is equipped to

ituminous material in either liquid or solid

nne. For engine information, refer to TM 5-

### 1-2. Forms and Records

a. DA Forms and records used for equipped

tenance will be only those prescribed in b. Report of errors, omissions, and rec

St. Louis. Mo. 63120.

on DA Form 2028 (Recommended Change

cations) and forwarded direct to Comman

eral, U.S. Army Mobility Equipment

ATTN: AMSME-MPP, 4300 Goodfellow

d. Burner System. The burner system a fuel tank, two burner fuel hose assen

burners and a thermostatic control. It is

for operation on kcrosene or diesel fuel.

fuel tank (fig. 1-1) is equipped with a hand

Air pressure in the fuel tank forces fu

both fuel line assemblies to the burners

vaporized, ignited, and the flames directed

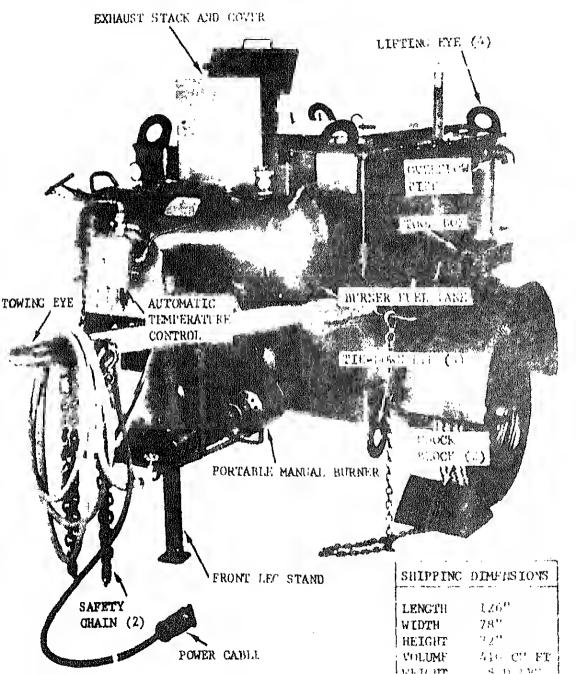
combustion chamber. One burner is mai

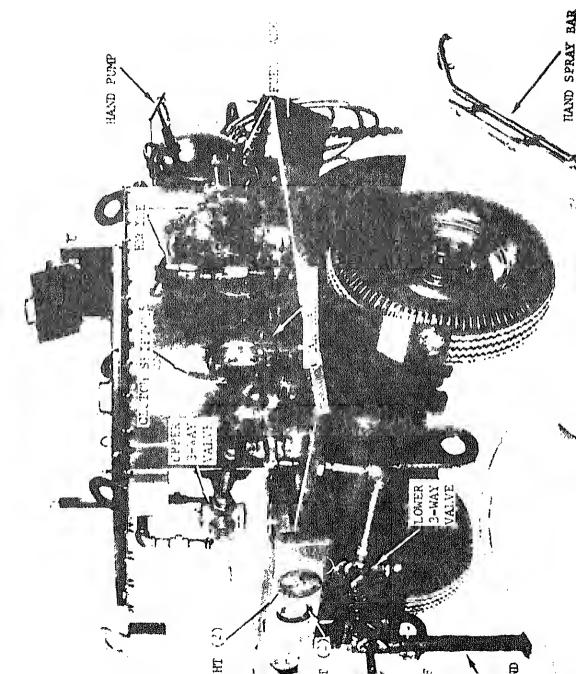
trolled by mesns of a valve and equipped

fuel hose so that it may be removed from

ing bracket and used as a hand torch. burner is equipped with thermostatic contr tain any desired temperature within the

range. An overtemperature safety shuto-





directed biles to the method turn of through the	ratio	4 13 (0 1
spray hose to the outlet nozzle. The pump assembly	Service factor	1.00
is equipped with a relief valve (fig. 3-17) that auto-	Torque capacity	324 in. lbs.
matically allows material to circulate around the	d. Air Tank Plate.	
pump assembly when spraying operations are tem-	Manufacturer	Midwest Tar
	National Board No.	366
porarily interrupted.	Max W. P.	100 psi
f. Trailer System. The trailer system consists of a	Tested	200 psi
frame assembly, running gear, and lighting system.	Head thickness	3/16"
It is equipped with tiedown eyes, lifting eyes, and	Shell thickness	3/16"
towing eye (fig. 1-1) for coupling the unit to a towing	Year built	1969
vehicle. The lighting system operates when the power	e. Army Identificat	
cable (fig. 1-1) is coupled to a power source.	Nomenclature	Kettle, Heat 165-gal Ca
	Model	F3M-1
	Federal Stock No.	3895-442-974
N. A. B.J (182 a2	Warranty	12 months
1-4. Identification	Contract No.	D\$A700-69-0
The kettle has six identification plates. The data	Gross vehicle wt.	3000 lbs.
from these plates can be found in paragraph 1-6.	Shipping wt.	1800 lbs.
**************************************	Length	126"
	Height	72"
	Width	78"
1-5. Diff, rence in Models	Cuhe	410
	f. Transportation De	
This manual covers only the White Model F3M-1	Overall length Overall height	126" 72"
Kettle. No known unit differences exist for this	Overall width	72 78"
model,	Shipping cubage	410"
	Shipping tonnage	11
	Shipping weight	1800 lbs
4 A A	.,	
1-6. Operational and Organizational Tabulated	g. Wiring Diagram.	
Data	provided for maintena	n <b>ce</b> of t <b>he</b> elect
a. General.	h. Clutch Assembly.	
	Manufacturer	Twin Disc Co
Manufacturer White Mfg. Div. of Midwest	Model	V-1035
Tank & Mfg. Co., Inc.	i. Speed Reducer As:	sembly.
Model No	Manufacturer	Dodge Manu
Capacity		Corporation
b. Engine Plate. For engine plate data on model	Model number j. Pump Assembly.	SR-16A
1A08-III, see TM 5-2805-256-14.	Manufacturer	Oberdorfer l
c. Speed Reducer Plate.	Model number	9000 BR

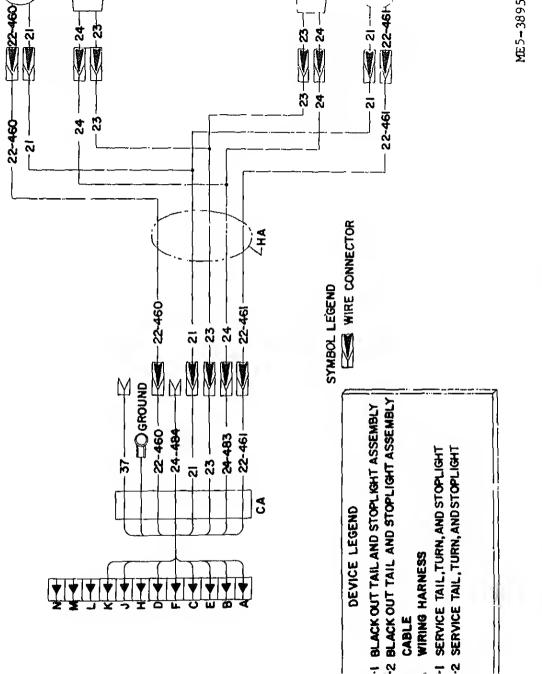


Figure 1-8. Schematic wirnng dingram.

#### Section I. SERVICE UPON RECEIPT OF EQUIPMENT

#### **Inspecting and Servicing Equipment**

Remove protective covering or sealing matefrom valves, tank openings, etc. Remove separately packed accessories and parts

Make visual inspection of the kettle and access for damage or missing parts.

Check equipment against packing list and reany discrepancies to field maintenance.

# Installation of Separately Packed Parts and

following items have been removed prior to ment, and are packed inside the kettle. Install

own by figure 2-1.
Drawoff valve.

inside heating kettle.

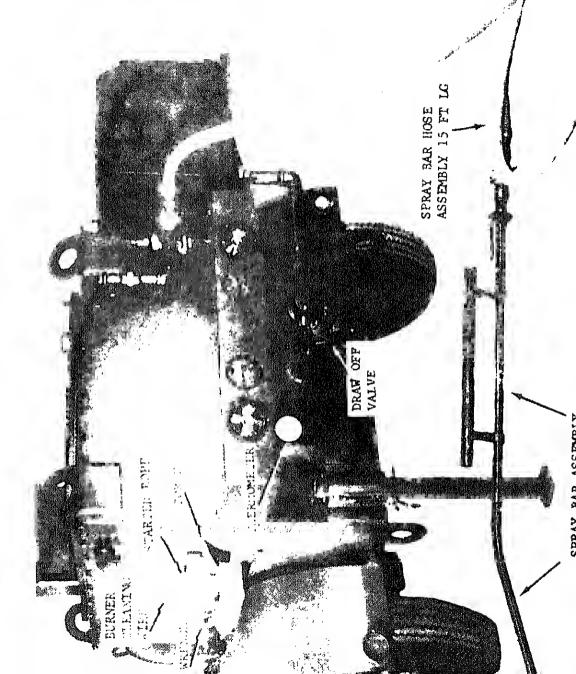
Thermometer.

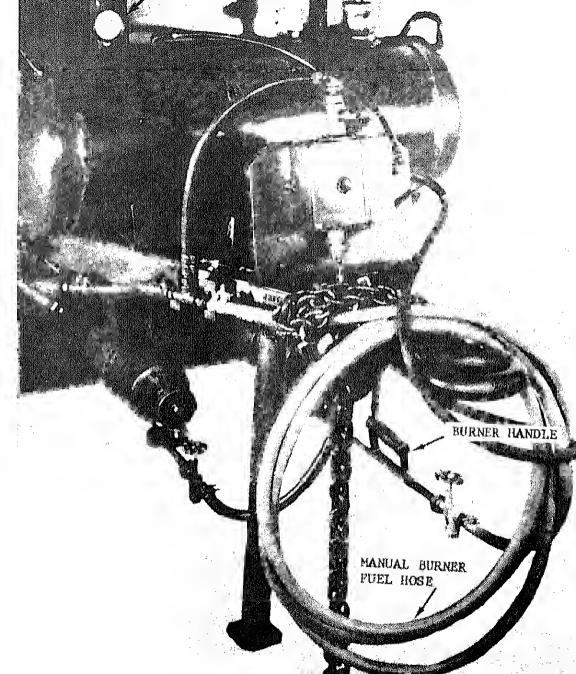
Torch.

- d. Burner cleaning wire.
- e. Valve wrench.
- f. Manual burner fuel hose.
- g. Pressure gauge.
- h. Safety valve.
- i. Burner handle.
- j. Starter rope.
- k. Spray bar assembly with 2 pieces.
- l. Spray bar hose assembly, 15 ft lg.

#### 2-3. Installation and Setting-Up Instruc

- a. Lower front leg stand (fig. 1-1) and stand (fig. 1-2) and pin in place before releas towing vehicle, or releasing tension on lifting
- b. Keep kettle as level as possible durir tion.
- c. Chock wheels, if necessary, to preve tentional movement.





b. Connect power cable (fig. 1-1) to vehicle power ceptacle.
c. Raise front leg stand (fig. 1-1) and rear leg and (fig. 1-2) and pin in retracted position.

a. Attach towing eye (fig. 1-1) to suitable towing

- and (fig. 1-2) and pin in retracted position.
- See paragraph 2-3.

2-5. Re-installation After Movement

e. Attach safety chains to towing vehicle f

2-7. Controls and Instruments

kettle.

Section III. CONTROLS AND INSTRUMENTS

#### nis section describes and illustrates the various

6. General

hicle.

ntrols and instruments and provides the operator ith sufficient information to insure proper operator of the kettle under normal circumstances.

#### Figure 2-2 illustrates and explains the functi

controls. Figure 2-3 illustrates the normal readings for all instruments.

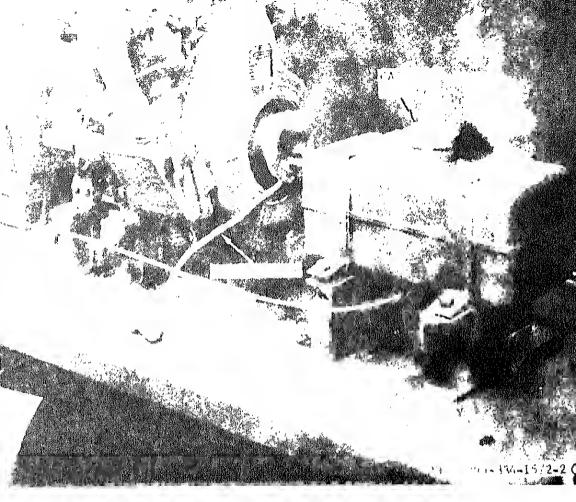
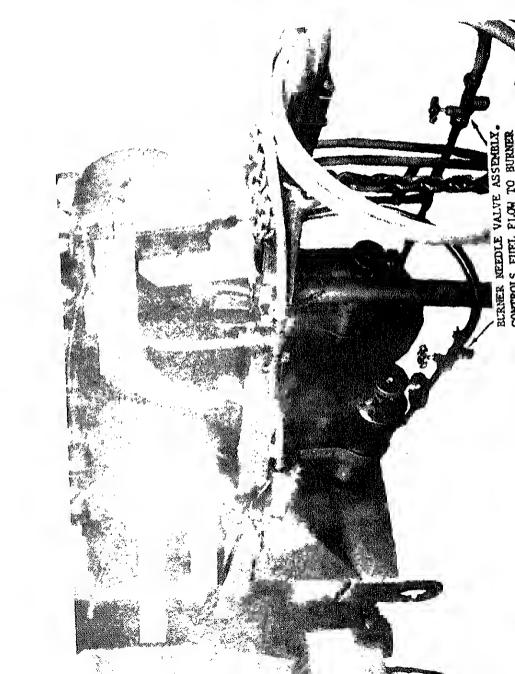


Figure 2-2. Operating controls (sheet 1 of 8).



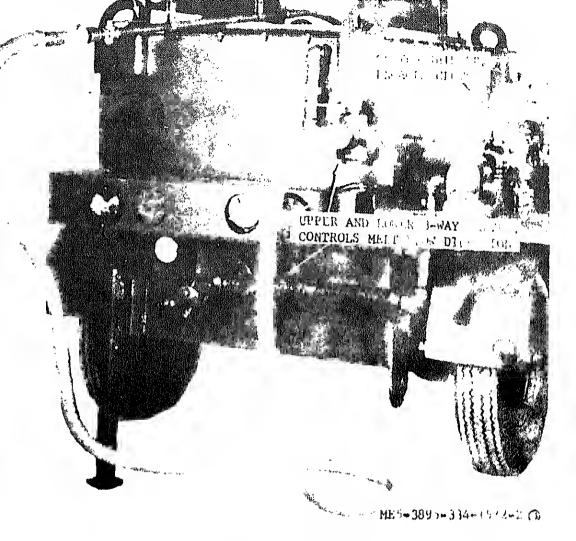
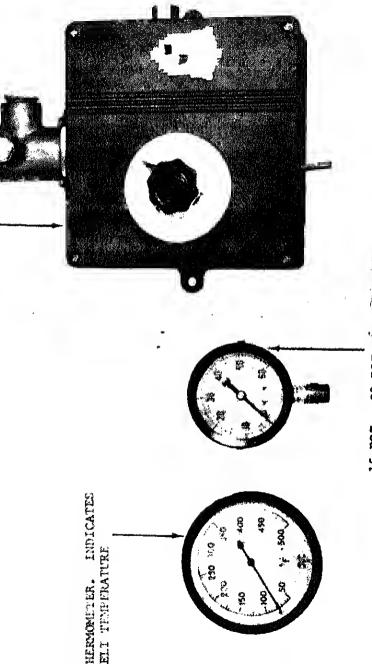


Figure 2-2. Operating controls (sheet 3 of 3).



150° TO 350° LEMPERATURE

CONTROL RECUIATES MELT TERRETRATURE

15 PSI - 30 PSI AIR PRESSURE GAUCE. GIVES FUEL TANK AIR PRESSURE

nformation and guidance of personnel responsior operation of the heating kettle. It is essential that the operator know how to orm every operation of which the heating kettle pable. Paragraphs 2-9, 2-10, and 2-11, give intions on starting, stopping, and operating de-

The instructions in this section are published for

of the engine and heating kettle. Since nearly job presents a different problem, the operator have to vary the given procedure to fit the indiıl job. Engine Starting Instructions to paragraph 2-11d(8) for engine stopping in-

#### . Engine Stopping Instructions to paragraph 2-11d:8) for engine stopping intions.

### . Kettle Operating Instructions Starting Instructions for Both Burners. 1) Open stack cover (fig. 1-1). Fill burner fuel

# three-fourths full with clean kerosene or diesel

ing instructions.

kerosene preferred) (fig. 2-4).

Caution: DO NOT FILL TANK OVER EE-FOURTHS FULL, RESERVED SPACE REQUIRED FOR COMPRESSED

to fill priming cup one-quarter full. Close valv take hand torch and soak it with fuel. Now, ! satuarated torch and place it in priming cup fuel located there. Allow fuel to burn untilhot enough to vaporize fuel. Allow two

minutes for vaporizing coil to heat, Priming

DOUNTAL CONTROLS WILL NOT OF PROPERLY UNLESS ADEQUATE VOLU

COMPRESSED AIR IS AVAILABLE IN

pump, to approximately 25 p.s.i., then open the

located at hottom of fuel tank (fig. 2-4).

(2) Pressurize burner fuel tank with huilt-

(3) Open valve at burner, slightly, allow

have to be refilled before coils are hot en vaporize fuel. When fuel is vaporized, reopen burner one-eighth turn. If burner spits oil, eld again and allow more time for gas to generate

(4) Once burner stops spitting oil, reopuntil burner gives smooth hurning performan Note. Maintain air pressure in fuel tank between p.s.i. for best burner performance.

(5) Set thermostatic controller to desire ating temperature by turning knob located of of the temperature controller, elockwise (fig. 2 (6) If operating heat chamber temperati

above preset temperature by 15°, the conti

automatically depressurize fuel tank and flame will fail. When this happens, allow ma cool until it drops back past pre-set temp Then, repeat steps (1) thru (5) as may be requi

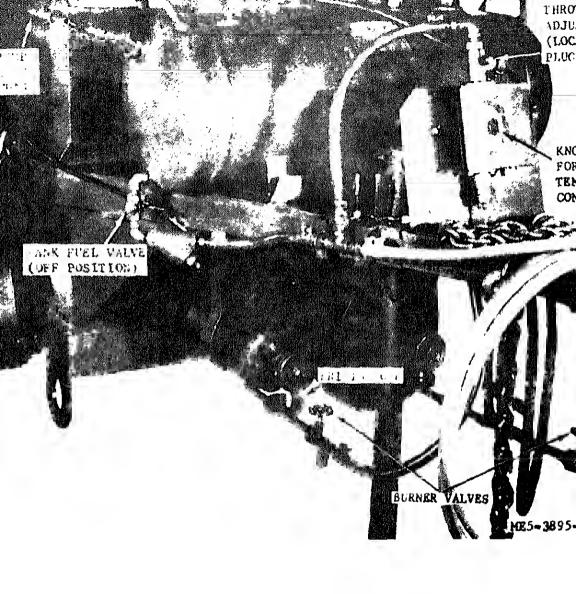


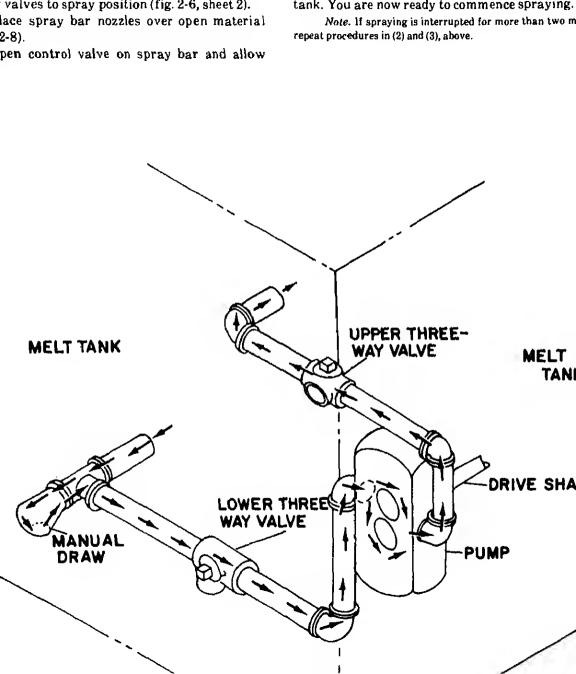
Figure 2-4. Burner system startup.

## Operating Pumping System. (1) Place levers on upper and lower three-way

es to circulate position (fig. 2-6, sheet 1).

(e) Close choke lever (fig. 2-2, sheet 1).
(f) Check clutch shifter to make sure disengaged (fig. 2-7).





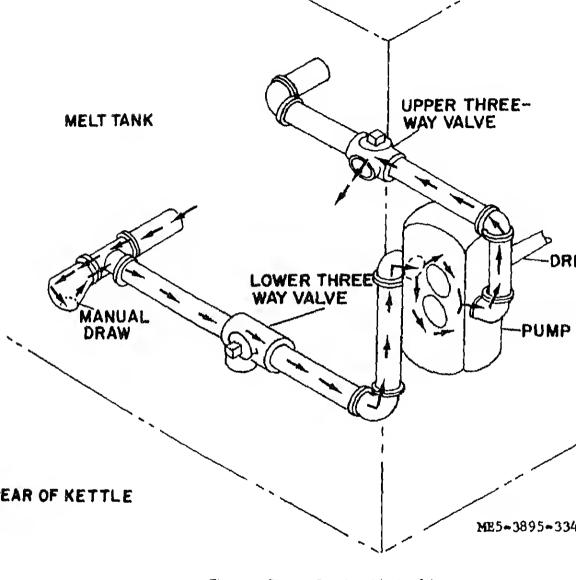


Figure 2-6. Bitumen flow chart (sheet 2 of 4).

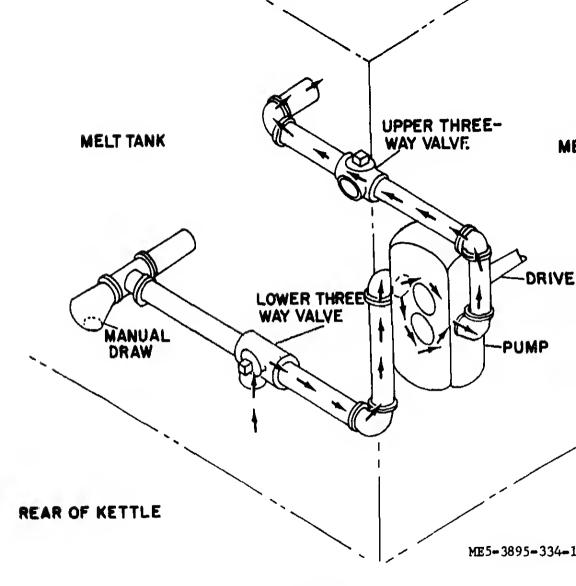


Figure 2-6. Bitumen flow chart (sheet 3 of 4).

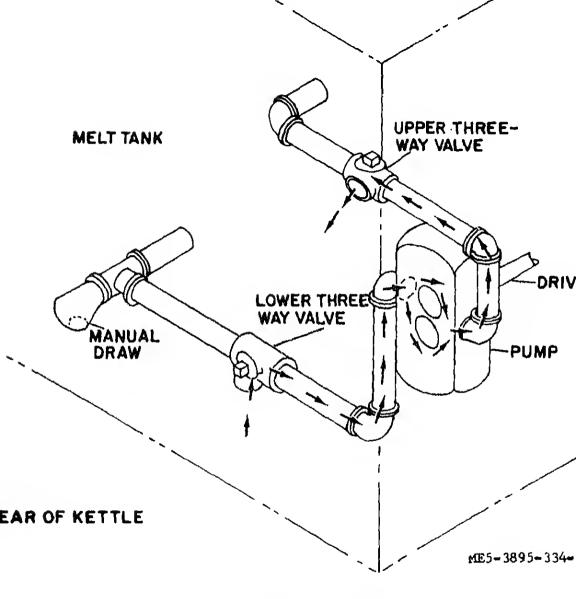
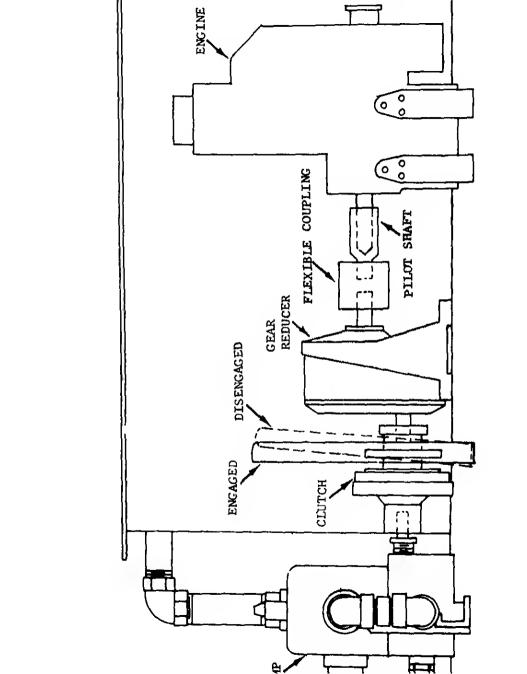


Figure 2-6. Bitumen flow chart (sheet 4 of 4).



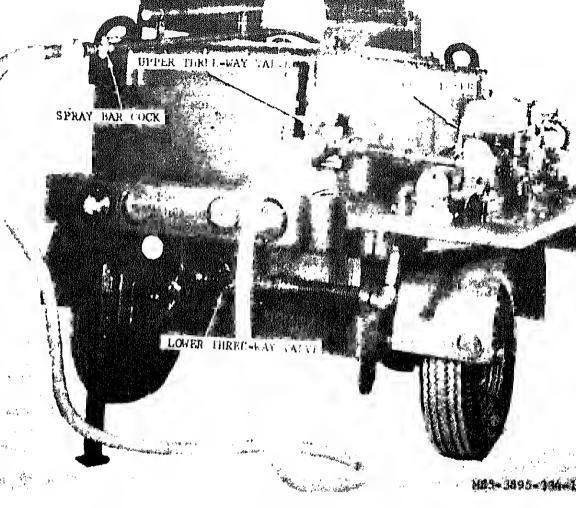


Figure 2-8. Spray controls.

eating Kettle Shutdown.
) Turn upper three-way valve to circulating

n (fig. 2-6, sheet 1).

2-

solvent to open side of lower three-way v 2-6, sheets 3 and 4).

(6) Engage clutch: nump solvent three Fuel. Keep fuel tanks as full as possible at all s to prevent condensation. Drain and service

. Operation in Extreme Cold

strainer frequently (TM 5-2805-256-14). Engine. During warmup, allow engine sufficient to reach normal operating temperature before

ving load. Lubrication. Lubricate as specified in current

cation order. Pumping System. It may be necessary to heat , valves and pump, with hand torch, to establish

lation through the piping system. . Operation in Extreme Heat

Cooling, Check cooling fins on the engine cylinder cently to make sure they are clean and undam-

Lubrication. Lubricate as specified in current ication order.

Fuel. Keep fuel tanks as full as possible at all s to prevent condensation. Drain and service strainer frequently (TM 5-2805-256-14).

4. Operation in Dusty or Sandy Areas Air Cleaner. Refer to TM 5-2805-256-14 and servthe air cleaner frequently to keep the engine free

and and dirt. Fuel. Strain all fuel before adding to the fuel ks. Clean the area around the fuel tank cap embly to prevent the entrance of dust and dirt ing the filling operation.

Conditions a. General. If the unit is outside and not ating, place a canvas or other waterproof cover

2-15. Operation Under Rainy or Humid

c. Lubrication. Lubricate as specified in the

the unit during storms.

Warning: DO NOT OPERATE THE F

ING KETTLE WITH THE MELTING '

rent lubrication order.

COVER OPEN DURING RAIN. WATER TACT WITH BITUMEN NEAR OR AT (

ATING TEMPERATURE WILL CAUSE PLOSIONS INJURIOUS TO PERSONNEL b. Fuel. Keep the fuel tanks as full as poss all times to prevent condensation. Drain and

c. Lubrication. Lubricate as specified in the rent lubrication order.

the fuel strainer frequently (TM 5-2805-256-14)

2-16. Operation In Salt Water Areas a. General. Salt water causes corrosive ac

metal. Care must be taken to avoid contact w water; wash the unit with clean, fresh water.

surfaces. Coat exposed parts of polished steel of ferrous material with rustproofing materia light coat of grease.

b. Preservation. Paint all exposed nonp

2-17. Operation at High Altitudes Refer to TM 5-2805-256-14 for engine opera

high altitude.

# Section I. OPERATOR AND ORGANIZATIONAL MAINTENANCE TOOLS AND EQUIPMENT

Pie.

ial tool required to perform operator mainon the burner is listed in table 3-1. Referan illustration and the use of this tool are the table. The five-digit code preceding the

PEN or part No.

icial Tools and Equipment

1tem

kettle.

athed telephoneten to form and to

stock number is the Federal supply code the manufacturer of the tool. No special is required by organizational maintenar

Uae

To clean burner orific

forming maintenance on the kettle.

	- 11
Table 5-1	. Special Tool

ilng needle.	(03742) TK-002	8-21	3-35	
			<u> </u>	
gańizational <i>l</i>	Maintenance Repair F	orts :		
tional mainter trated in TM 5-	nance repair parts are 3895-334-25P.	listed		

## Section II. LUBRICATION

Reference

Pare

neral Lubrication Information

#### place, away from heat. Allow no dirt, di or foreign material to mix with the lubric er to LO 5-2805-256-12 for lubrication of time. Keep all lubrication equipment ready for use. er to LO 5-3895-334-12 for lubrication of

b. Cleaning. Keep all external parts not lubrication clean from lubrication. After rication operation, remove any excess

## General

To insure that the heating kettle is ready for tion at all times, it must be inspected systemly so that defects may be discovered and cord before they result in serious damage or failure. necessary preventive maintenance checks and ces to be performed are listed as described in

graph 3-6. The item numbers indicate the sequence of miniinspection requirements. Defects discovered

ng operation of the unit will be noted for future

ection, to be made as soon as operation has

Ors

Interval

Operator

Daily

equipment if operation were continued. Al cies and shortcomings will be recorded, with the corrective action taken, on DA F (Equipment Inspection and Maintenance W at the earliest possible opportunity.

3-6. Preventive Maintenance Checks

ceased. Stop operation immediately if a def noted during operation which would da

## and Services Table 3-2 lists operator and organizational p

maintenance checks and services. Table 5-2. Preventive Maintenance Checks and Services

> gasket or insecure fit. Secure loose mountings. Replace leaking or dam-

line or fittings. Tighten loose fittings.

Inspect coupling for looseness or damaged esteareme ata Danlass dem --

Inspect for damaged or leaking fuel

aged tank or cap.

Replace damaged lines.

M - Monthly

O-Quarterly

Fig. 3-1

A - After operation
W - Weekly B-Refore operation

0 - Dyring operation

		the state of the s		<del></del>					
	0	B D A W	0	litm to be inspected	Procedure	Refe			
•	x						General visual Inspection	Make a general visual inspection of the unit for cracks, breaks, loose or missing bolts, nuts, etc. See that engine is securely mounted and unit set as level as possible. Inspect for tampering, damage, fuel, or bitumen leaks. Do not operate until deficiencies are corrected.	
2	X	ļ			X	x	Lubrication	Lubricate in accordance with current lubrication order.	
	X				X	X	Engine	For preventive maintenance instruc- tions on engine, refer to TM 5-2805- 256-14.	TM 5-280
	X	ļ			X	X	Fuel tank and cap	Inspect fuel tank for insecure mounting and leaks. Inspect cap for defective	Fig. 3-1

	Dady				0	O Stem to be inspected	Proyecture	Refer
<u> </u>	O		w	M				
					X	Valves	Inspect upper and lower 3-way valves for cracks, leaks, improper operation, and inadequate lubrication. Replace defective valves. Lubricate as des- cribed in the current lubrication order.	Para 3-2:
					X	Coupling, spray bar assembly, piping and cock.	Inspect the pipe coupling for cracks or damage. Inspect the spray bar assembly for cracks, kinks, leaks, or other damage. Inspect spray bar cock for freedom of operation and leaks. Inspect spray nozzles for restrictions, Replace or repair damaged parts. Clean nozzles.	Para 3-3 fig. 3-
			X		X	Burner fuel tank	Inspect fuel tank for loose mounting. Inspect cap for tight seal or damage. Inspect air pump for proper operation and damaged parts. Inspect pressure relief valve for damage & proper setting. Inspect pressure gage for proper operation and damage. Re- place damaged fuel tank; secure loose mountings. Replace damaged air pump parts. Lubricate air pump, Replace defective pressure relief valve or pressure gage.	Para 3-3 fig. 3-4
			li	}	х	Burner fuel lines	Inspect fuel lines and fittings for damage or leaks. Clean filter and replace any damaged parts. Replace damaged fittings, hose or pipe. Tighten leaking connections.	Para 3-3 fig. 3-2
	ļ		х		X	Burner assem- blies.	Remove and inspect burner strainer valve for dirt and damage. Inspect burner for cracks, breaks, or damage. Clean or replace strainer valve. Clean burner coils and jets. Replace damaged parts.	Para 3-3 fig. 3-2
					Х	Thermostatic control	Inspect Instrument for damage. Pres- surize tank, turn temperature control knob counterclockwise to determine if vaive opens to bleed off air pres- sure at approximately 15° F above amblent temperature.	Para 3-8- fig. 3-2
	ĺ	x		X	Х	Air llnes	Inspect air line for leaks, or damaged parts. Inspect thermal element and capillary for damage. Replace damaged or malfunctioning instrument	Fig. 3-20

Nomber Post		Oper	1014		0	ß	D-Duting operation W-Workly Q-Quan			Q-Quarte	τly
<u> </u>		Daily M Q Item to be inspected Procedure									
	-9	0		w							
								loose or all mind welds of tenance field ma a damag	ness. Tighten or re- missing hardware or dents. Report bra r misalinement to for Report a defective aintenance. Repair ged cover as necess place fusible link.	. Straighten acks, broken lield main- e tank to or replace	
18						x	Leg stands	Inspect from cracks, chains.	ont and rear leg sta bends, and missing Repair or replace d ds. Replace missin ns and chains.	g pins or lamaged	Fig. 3
19			    -   			X	Springs and shackle bolts	Inspect th  i and ship Inspect Inspect Tighten hardwa	te springs for misal fted, bent, or broke for loose or missin all shackls bolts for or replace all loose we. Replace all defeor shackle bolts.	n leaves. g hardware. or damage, e or missing	Para : fig.
20						X	Axle	Inspect the mounting for bening all loose	ne axle for loose or a ng hardware. Inspo t condition. Tighter e or missing hardw defective axle.	ect the axle n or replace	Para ; fig.
21	13 15 15 15			X		X	Wheels	Inspect the ing condition missing Inspect Tighter ing mo	ne wheela for improdition. Inspect for igmounting bolts are for defective great nor replace all loos unting hardware. For wheel or grease is	loose or nd nuts. se seals. e or miss- Replace a	Para : fig.
22				X		X	Tires	Inspect the sure, en bedded valve co rial. In	he tires for imprope xcessive cuts, and w foreign material, a aps. Remove all for flate tires to 45 psi. g valve caps and def	er air pres- vear, em- and missing eign mate- Replace	Para (
23						X	Lights and wir- ing.	Inspect the Inspect other discolor mounti	he lamps for unservente line for dirt, bramage. Inspect refleration, breakage, or ng. Inspect all wiritallation, corroded	reaks, or lectors for rinsecure ng for defec-	Para 3

Daily M Q Item to be inspected	Procedure Refer				
B D A W	Procedure Refer				
X Appearance	Inspect the kettle for cleanliness, legi- bility of markings, and condition of paint. Correct all deficiencies or re- port them to field maintenance.				
Section IV. OPERA	ATOR MAINTENANCE				
	2.15 Comes (Non-Electrical)				
ngine	3-15. Gages (Non-Electrical)				
o TM 5-2805-256-14. hecks and Services	Inspect thermometer and air pressure gage readings.				
m the following inspections and services as	3-16. Pumps				
in the tenewing inspection, and services as	Inspect pressure relief valve. Adjust nu				
Jel System  Fuel lines and fuel tank cap. If tank cap is	when needed. Service cone and collar shifte pump assembly as needed.				
lefective, replace when needed.	3-17. Fuel Tank (Burner)				
	Inspect safety valve assembly, air line, I				
Fuel Filters : fuel filters for obstructions.	fittings; adjust the pressure regulator a Service the fuel valve shutoff and fuel tank cap assembly as needed. Replace fill cap assembly				
Electrical System					
tail and marker lamp assembly and trailer	needed.				
g cable for non-operation or surface damage.	3-18. Material Spray Bar				
Power Transfer	Inspect quick-action coupling and spray				
vent plug on gear reducer. Inspect flexible	proper ease of operation. Service material				
g. Remove restrictions from vent plug.	and spray nozzle for proper flow. Replace ale as needed.				
Wheels and Track					
wheel assembly, tires and tubes. Service	3-19. Material Piping and Accessories				
nd tubes as needed.	Inspect fusible link, all piping and fittings				
Landing Gear, Leveling Jacks	spect the quick-action couplings and spray hice both upper and lower three-way valve				
leveling tacks for oroner leveling when needed.	melting vat.				

quantity inadequate for preheating	a. Burner shutoff valve closed.	a. Open burner shutoff valve.
er.	b. Burner shutoff valve strainer clogged.	b. Remove and clean strainer screen (7, fig. 3-21).
	c. Main fuel strainer clogged.	c. Remove and clean strainer screen (1 3-20) (para 3-35f).
	d. Burner jet plugged.	d. Clean jet (fig. 3-21) (para 3-17).
	e. Fuel tank not pressurized.	e. Pressurize fuel tank to 25 pai (fig. 2 (para 2-11a).
l	f. Water in fuel tank.	f. Drain fuel tank, replenish fuel supp
	<ul> <li>g. Relief valve out of adjustment or defective.</li> </ul>	g. *Adjust or replace relief valve (fig. (para 3-35b).
ner fails to ignite or stops burning.	a. Burner jet plugged.	a. Clean jet (fig. 3-20) (para 3-17).
interest to agriculture stope serving.	b. Fuel tank pressure inadequate.	b. Pressurize fuel tank to 25 psi (fig. 2 (para 2-11a).
}	c. Burner shutoff valve strainer clogged.	c. Remove and clean strainer screen ( 3-21) (para 3-35e).
	d. Main fuel strainer clogged.	d. Remove and clean main strainer so (fig. 3-20) (para 3-35f).
	e. Water in fuel tank.	e. Drain fuel tank, repleniah fuel tan
	f. Burner coil excessively carboned.	f. *Remove burner and clean coils (fit (para 3-35c).
	g. Ther mostat setting below or at material temperature.	g. Set thermostat at desired operatin temperature (fig. 2-4) (para 2-11a).
rner flame insufficient or fluctuating	a. Wrong or poor grade of fuel.	a. Drain fuel tank and replenish fuel
The tradite insufficient of fractioning	b. Water in fuel tank.	b. Drain fuel tank and replenish fuel
	c. Fuel tank pressure low.	c. Pressurize fuel tank to 25 psi (fig. 5 (para 2-11a).
	d. Burner jet plugged.	d. Clean jet (fig. 3-21) (para 3-17).
	e. Burner coil excessively carboned.	e. *Remove burner and clean coil (fig (para 3-35c).
	f. Fuel surge in line.	f. Preheat the burner (fig. 2-4) (para
	g. Burner shutoff valve strainer clogged.	g. Remove and clean strainer screen 3-21) (para 3-35e).
	h. Main fuel strainer clogged.	h. Remove and clean main strainer so (fig. 3-21) (para 3-35f).
irner flame fails to reduce when oper operating temperature is reached.	a. Thermometer and thermostat are at opposite ends of melting tank. Heat may not be uniform throughout.	a. Circulate bitumen (fig. 2-6) (para 2
	b. Thermostat heat sensor defective or damaged.	b. *Replace thermal sensing element 3-21) (para 3-35g).
urner flame fails after operating	a. Burner shutoff valve partially closed.	a. Open burner shutoff valve.
mperature is reached.	b. Fuel tank pressure low.	b. Pressurize fuel tank to 25 psi (fig. (para 2-11a).
	c. Throttling valve not open sufficiently.	<ul> <li>c. *Turn throttle valve adjusting acre clockwise, slowly, until desired res occur (fig. 2-4).</li> </ul>

ng kattle smoke excessively black.	a. Improper preheating procedure.	a. Refer to paragraph 2-11a.
	b. Burner flame fluctuates.	b. Refer to item 3, above.
	c. Melted bitumen leaking into combustion	c. Inspect melting compartment f
	chamber.	report leaks noted to DS maint
iometer indicates wrong	a. Protective well covered by layer of	a. Clesn protective well.
rature.	carbon.	
	b. Defective thermometer.	b. Replace the thermometer.
an material fails to flow from	a. Bitumen material not hot enough.	a. Heat to proper temperature.
	b. Drain clogged.	b. Clear drain by heating with he
p fails to operate or operates	a. Bitumen material not hot enough.	a Heat to proper temperature.
·ly.	b. Cold bitumen materlal in line or valves.	b. Warm lines, valves and pump hand torch. Jog clutch and con warming until pump runs free
	c. Bitumen level in melting tank below	c. Replenish melting kettle with
	pump suction connection.	proper operating level.
	d. Relief valve improperly adjusted or	d. *Adjust the relief valva (fig. 3-
	defective.	replace reliaf valve (fig. 3-16) (
	e. Pump defective.	e. *Replace pump (fig. 3-15) (para
h fails to operate or operates	a. Clutch out of adjustment.	a, *Adjust clutch (fig. 3-8) (para
perly.	b. Clutch defective.	b. *Replaca clutch.
reducer fails to operate.	Gear reducer damaged or defective.	*Replace gear reducer (fig. 3-7) (
is fall to operate or operate	a. Lamp burned out.	a. *Replace lamp.
perly.	b. Loose connections.	<li>b. *See that all ferrules are firm! the proper sockets (wiring diag fig. 1-3).</li>
	c. Ground lead loose or missing.	c. *Tighten or replace ground lea
	d. Lamp assembly defective.	d. *Replace lamp assembly (fig. 8 (para 3-23a).
	e. Wiring harness damaged or defective.	e. Repair or replace wiring harne 3-4) (para 3-23c).
	f. Trailer coupling cable damaged or defective.	f. *Replace cable (fig. 3-5) (para 3
	g. Towing vehicle electrical system	g. Report condition to operator of
	defective.	vehicle.
er does not track properly.	a. Tire pressure low.	a. *Inflate tires to 45 psi.
	b. U-bolts loose or broken.	<ul> <li>b. *Tighten or replace U-bolts (fi (psra 5-15).</li> </ul>
	c. Spring or center bolt broken.	c. *Replace spring or center bolt (pars 5-15).
	d. Shackle bolt loose missing, or broken.	d. *Tighten or replace shackle bo 3-11) (para 3-7).
wear excessive.	a. Loose hub bolts.	a. *Tighten hub bolts (fig. 3-10) (
	b. Wheel bent.	b. *Replace wheel (fig. 3-10) (par
	c. Axle bent.	c. *Remove and straighten, or re (fig. 3-11) (pars 5-15).
		(1.g. 2 - 1.) (1 - 1 1.)
	<u></u>	<u></u>

closing valve at burner. Fire kettle with manually controlled burner.

| WE OOM || #0000|| | #610 000 1100 03

### Section VII. ORGANIZATIONAL MAINTENANCE PROCEDURES

#### . Engine

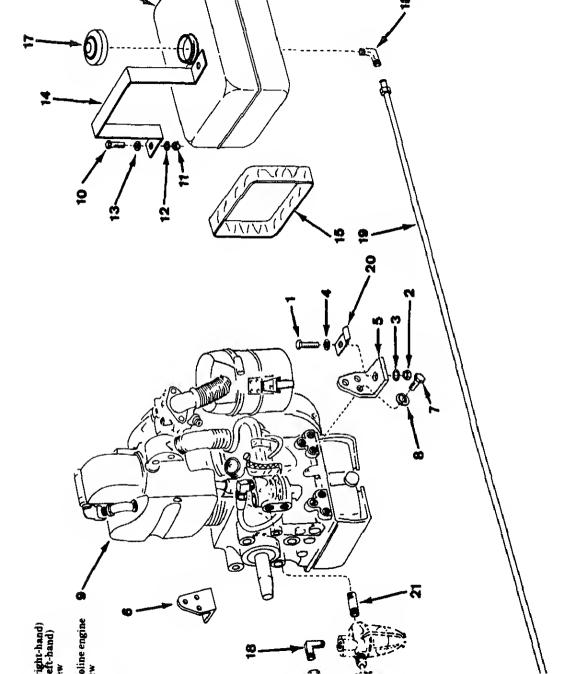
Engine Maintenance. For operator and organiza-I maintenance of the engine, refer to TM 5-2805-

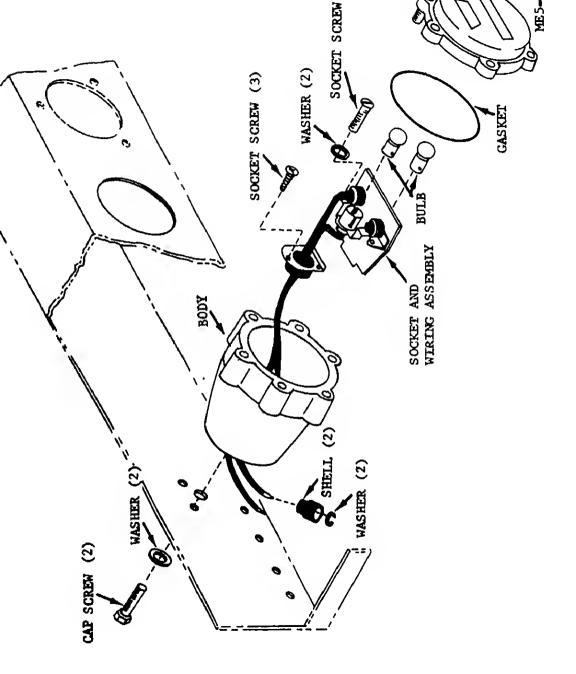
a. Engine Removal and Installation.

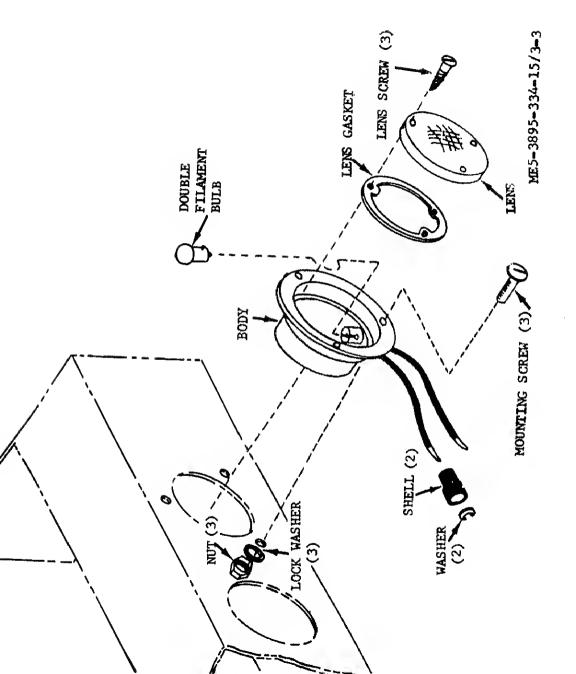
- (1) Refer to firming 2.1 for final line and filter
- (1) Refer to figure 3-1 for fuel line and filter, real and installation.
- (2) Refer to figure 3-1 for engine, removal and allation. Refer to (8, fig. 3-6) for adaptor shaft oval.

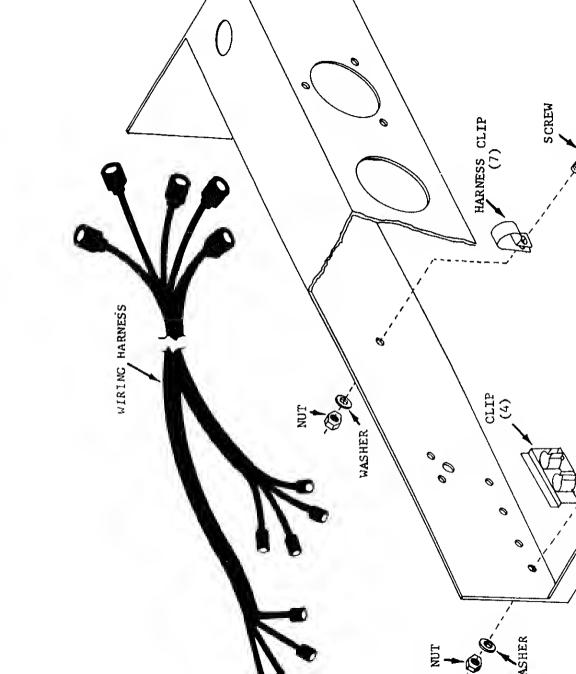
### 3-23. Electrical System

- a. Refer to figure 3-2 for blackout light a removal and installation.
- b. Refer to figure 3-3 for tail, turn, stopsembly, removal and installation.
- c. Refer to figures 3-2, 3-3, for bulb reminstallation.
- d. Refer to figure 3-4 for wiring harness and installation.
- e. Refer to figure 3-5 for trailer coupling moval and installation.











- o. Refer to figure 5-1 for clutch assembly, removal and installation.
  - (1) Refer to figure 3-8 for clutch assembly ad-
- justment. (2) Refer to figure 3-9 for clutch shifter, removal and installation.
- removal and installation.

ling, removal and installation.

(I) Keier to paragraph 3-240

(2) Refer to paragraph 3-24b(2

- (3) Refer to figure 3-7 for gea
- removal and installation.

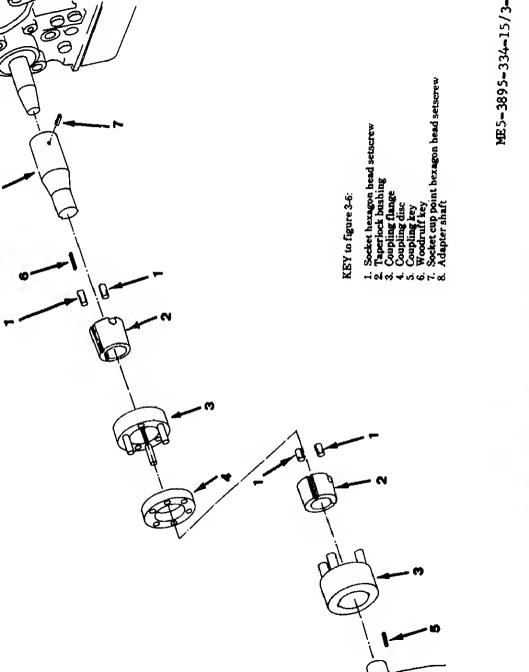
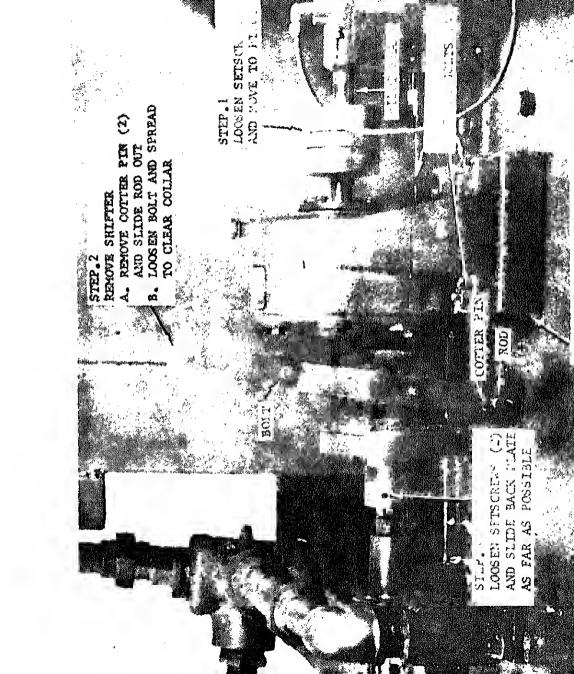


Figure 3-6. Flexible compling, removal, disassembly, installation and assembly.



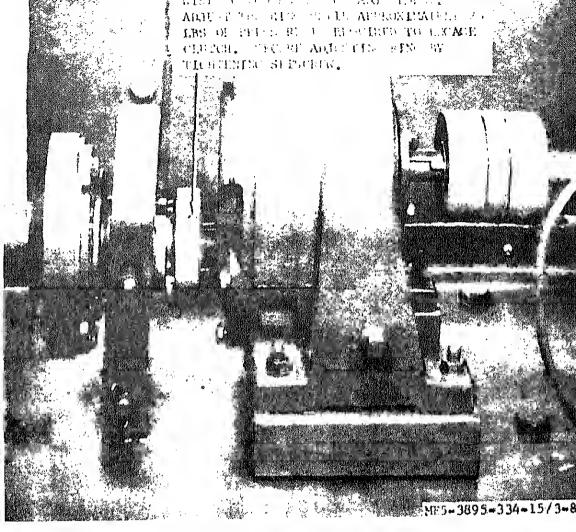
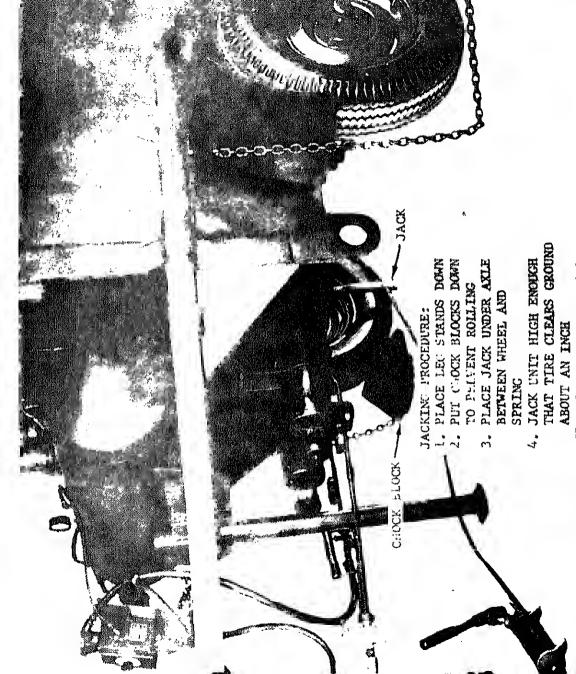


Figure s-8. Clutch assembly, adjusting procedures.



WF5-3805-33%-15/3

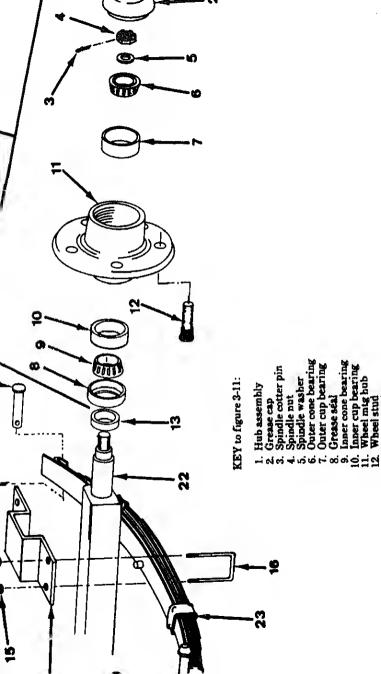


Figure 3-11. Hub, axie and spring, removal

MES-3895-334-1

Hexagon bead bolt

Cotter pin

Leaf type spring

Spring rivet Axle

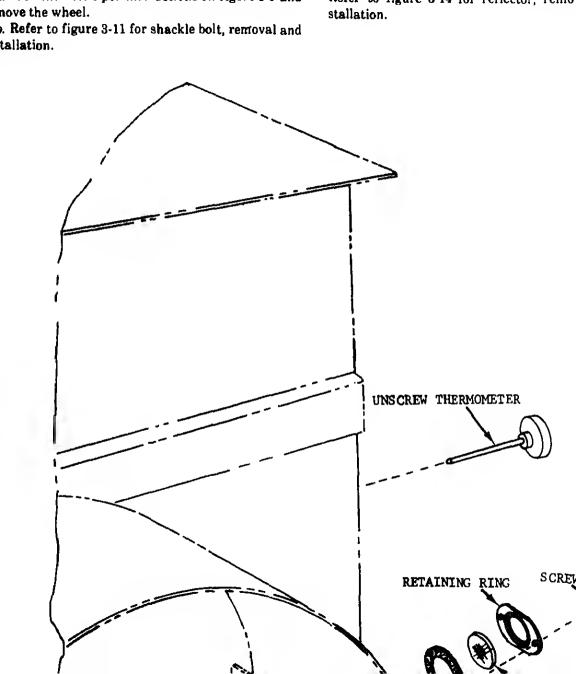
Hexagon lockput

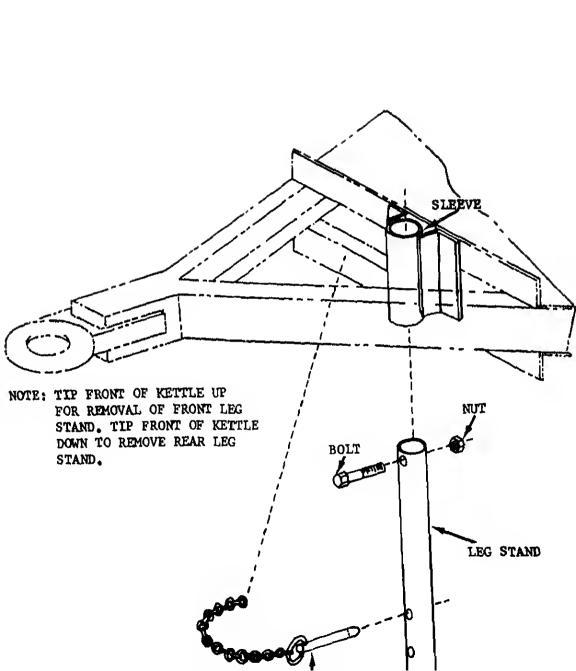
Clemp Clemp

Frease seal seat

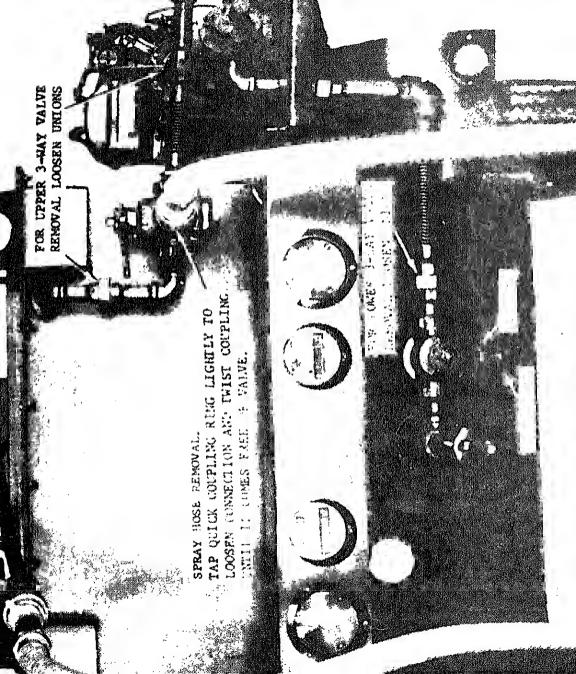
ockwasher.

U-bolt nut





b. Refer to figure 3-11 for shackle bolt, removal and stallation. UNSCREW THERMOMETER SCREW RETAINING RING



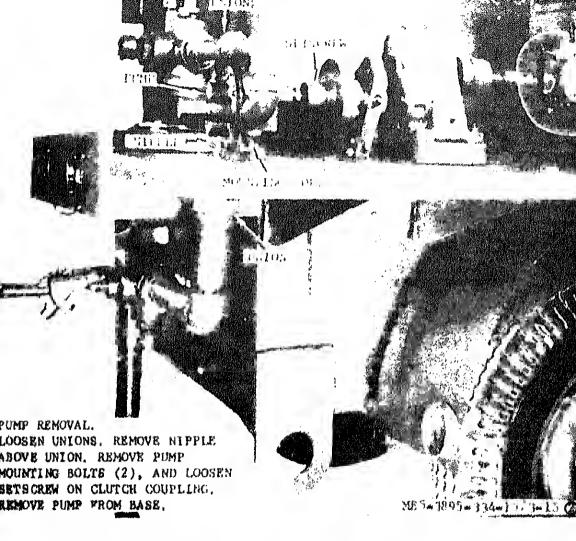
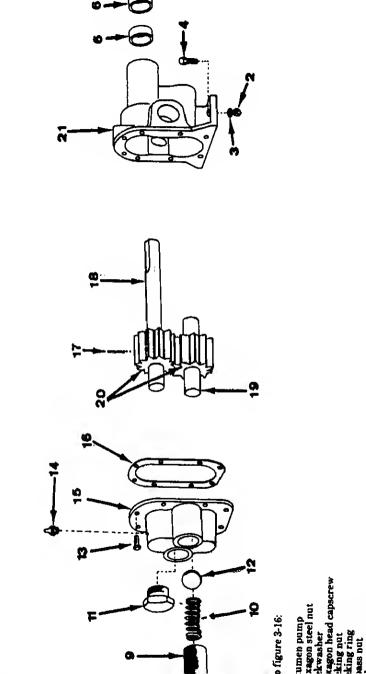


Figure 3-15. Piping, three-way valve, spray hose and pump, removal and installation (sheet 2 of 2).



MES-3895-334-15/3-

r gasket to shaft pin e shaft shaft p gear

knot usting screw less valve spring less plug nut roless steel ball rication fitting rr

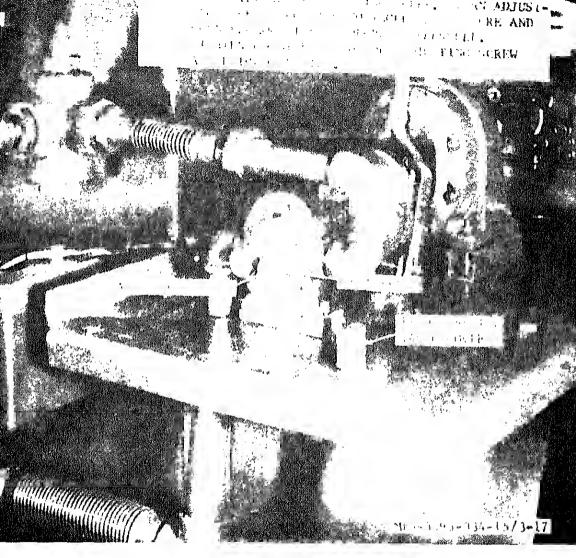


Figure 3-17. Pump pressure relief valve adjustment.

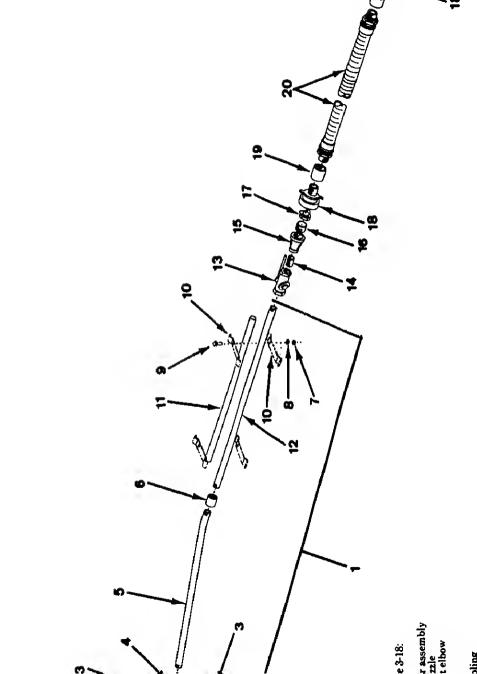
## . Piping System

wal and installation

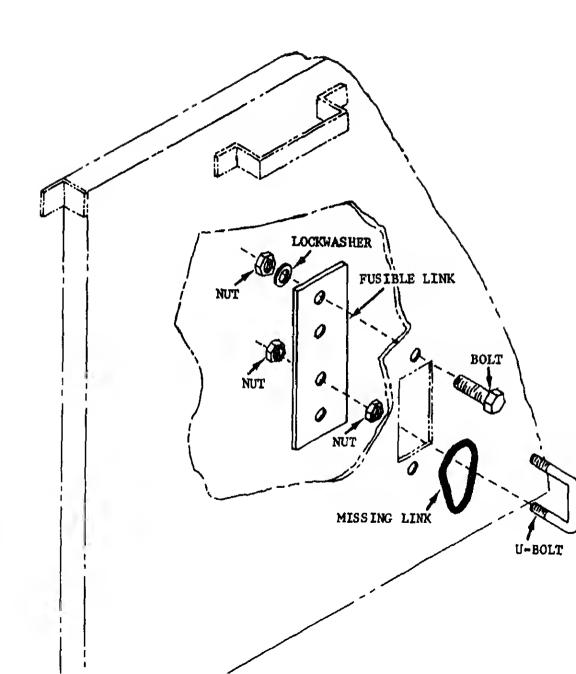
r to sheet 1 of figure 3-15 for three-way valve, re

removal and installation.

h Refer to figure 3-18 for shutoff value



pling but her head capscrew racket



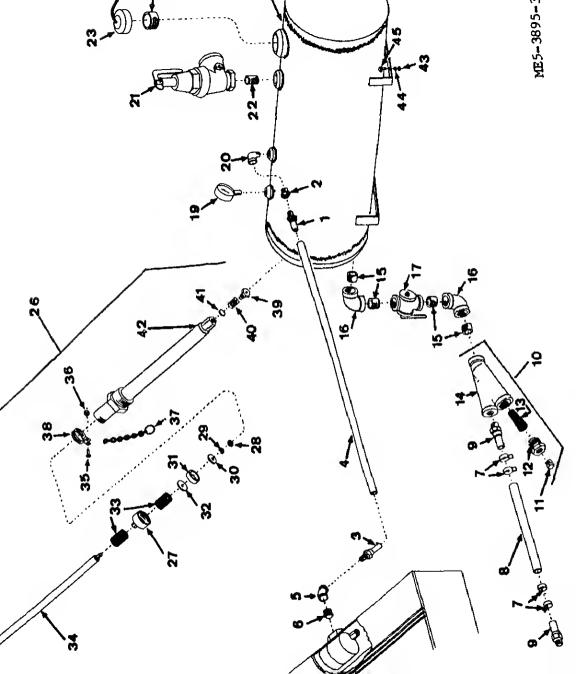
installation, refer to (1) thru (3), below. relief valve, removal and installation. c. Refer to item 15, figure 3-21, for burner assem-(1) Refer to item 39, figure 3-21, fo bly, removal and installation; also, burner disassemsensing element, removal and installation. (2) Refer to items 8 and 4, figure 3-2 bly and reassembly. d. Refer to item 17, figure 3-20, for fuel shutoff and air line, removal and installation. valve, removal and installation. e. Refer to figure 3-20, item 10, for line Y-strainer,

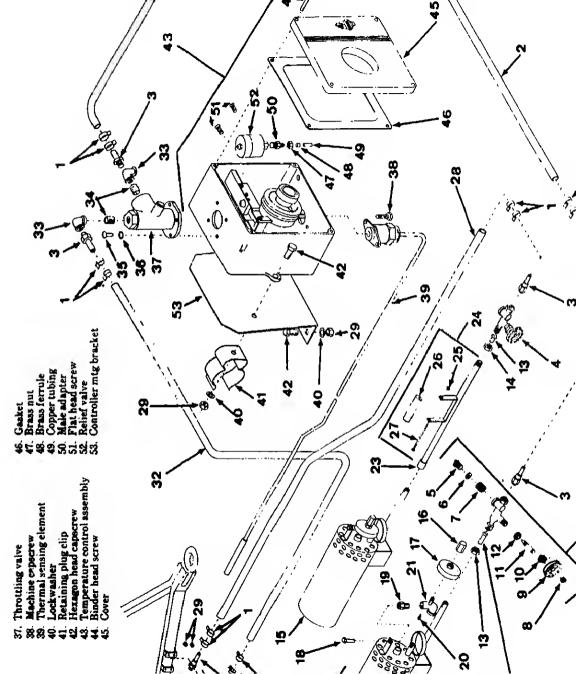
b. Refer to item 21, figure 3-20, for tank pressure

(3) Refer to item 43, figure 3-21, f

f. For burner thermostatic control, rea

thermostatic control, removal and installati





# Section I. SHIPMENT AND LIMITED STORAGE

eparation of Equipment for Shipment eneral. When preparing the heating kettle for nt, an inspection must be made to see that the in a good state of repair and can be put into

iate operation upon arrival. eparation. Prepare the engine for shipment in accordth the instructions in TM 5-2805-256-14.

Remove and separately pack the following

ents:

a) Fuel hose assembly, spray hose, and spray embly. b) Drawoff valve. c) Thermometer. d) Thermostatic control.

Clean all surfaces with an approved cleaning and dry thoroughly. Refer to the basic issue items list (appen. B). ns listed are on or with the heating kettle and ceable condition.

Refer to TM 740-90-1 for preservation, packshipping instructions. pading the Equipment for Shipment

mp Loading. Provide a suitable ramp at the the carrier. Position the bitumen heating ketthe bed of the carrier by means of another

ing Loading. Attach slings to the two front

o rear lifting eyes. Use a suitable hoist and

bitumen heating kettle to the bed of the car-

4-3. Preparation of Equipment for Stora a. Definition. Limited storage is defined as not to exceed 6 months.

eyes and secure the wires to the bed of th

b. Inspection. Make a complete inspection bitumen heating kettle as described in parag

Correct or report all discrepancies noted

maintenance. c. Preservation. Equipment in limited sto

formed: (1) Cleaning and drying. Prior to the ap of any preservative or paint, thoroughly e surfaces to be coated with an approved elea vent. Exercise care in cleaning so that the e

be given only limited preservation as specif

inafter; also, the following operations will

cleaning, and before applying the preservat surfaces and parts will be thoroughly dried.

circuits and components are not damaged

(2) Painting. Remove all rust, corrosi

scale from the surfaces to be painted. Refer 213 for detailed painting instructions. (3) Engine. Refer to TM 5-2805-256-14 f

ervation of the engine. (4) Tires. Inflate the tires to 45 psi. R: block the heating kettle so that no weight

on the tires. (5) Weatherproofing. A waterproof cov be provided to protect the bitumen heating stored outside. Seal all openings such as the

Section II. DEMOLITION TO PREVENT ENEMY USE 5. General (2) Place a 1/2-pound charge on the gear i assembly. en capture or abandonment of the bitumen heat-(3) Place a 1/2-pound charge between the kettle to an enemy is imminent, the responsible air pressure tank and the outer shell.

# the heaviest practical weapons available.

the right wheel and frame assembly.

4-8. Other Demolition Methods

(4) Place a 1/2-pound charge on the axle b

b. Weapons' Fire. Fire on the heating kett

accessible parts, such as the engine, three-way

gages, burner assembly, and spray bar assembly

ings, gears, and so on, at least every 30 days. ment must be serviced and in satisfactory ope

condition before it is operated.

a. Scattering and Concealment. Remove all

scatter them through dense foliage, bury them and sand, or throw them in a lake, stream, o body of water. b. Burning. Pack rags, clothing, or canvas

and around the unit. Saturate this packin gasoline, oil, or diesel fuel, and ignite. c. Submersion. Totally submerge the unit in

destruction of the heating kettle. Simulated de

metal parts than submersion in a body of

(3) Thermostat bulbs, thermostats, gages, and of water to provide water damage and conces A body of salt water will do greater dam

ote. The above steps are minimum requirements for this water.

. Misuse. Drain engine crankcase of all oil and 4-9. Training All operators should receive thorough training

with gravel, nuts, bolts, screws, or broken glass, operate the power spray system. ote. The above steps are the minimum requirements for this

sipment when equipment is initially placed in

ited storage and every 30 days thereafter. Re-

ired maintenance will be performed promptly to

t commander must make the decision either to

troy the equipment or to render it inoperative.

ed on this decision, orders are issued which cover

desired extent of destruction. Whatever method

lemolition is employed, it is essential to destroy same vital parts of all heating kettles and all

o. Demolition to Render the Bitumen Heating

Mechanical Means. Use sledge hammers, crow-

s, picks, axes, or any other heavy tools which may

(1) Engine block, gear reducer assembly, clutch

esponding repair parts (TM 750-244-3).

ivailable to destroy the following:

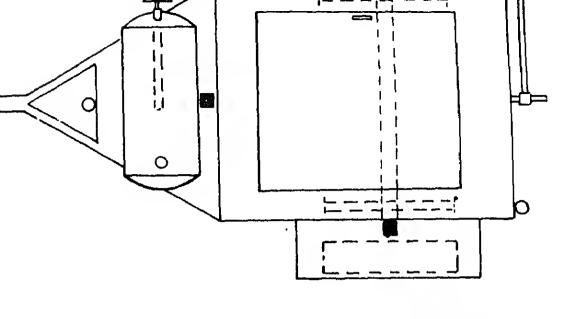
(2) Upper and lower three-way valves.

embly, and pump assembly.

tle Inoperative

id pump assembly.

(4) Tires.



LEGEND:

} POUND C

ME5-3895-334-15

Figure 4-1. Placement of charges.

## Section I. GENERAL

. Scope

of field and depot maintenance personnel. They tain information on the maintenance of the equip-

nt which is beyond the scope of the tools, equipit, personnel, or supplies normally available to

anizational maintenance facilities. Appendix A contains a list of all publications

licable to field and depot maintenance facilities

. Description

er to paragraph 1-3 for a complete description of heating kettle.

Special Tools and Equipment

pecial tools or equipment are required to mainor repair the heating kettle.

Direct Support, General Support, and Depot ntenance Repair Parts

for this equipment. Appendix C contains the tenance allocation chart. Appendix B conta The following instructions are provided for the basic issue items list

5-2. Forms and Records DA Forms and procedures used for equipmen

tenance will only be those prescribed by TM (Army Equipment Record Procedures).

Section II. DESCRIPTION AND DATA

5-4. Field and Depot Maintenance Tabula Data

a. Refer to TM 5-2805-256-14 for engine tab data.

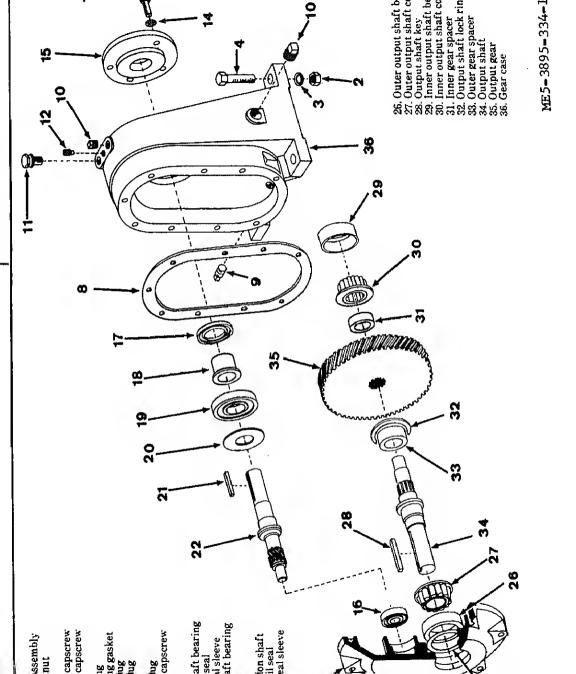
b. Refer to paragraph 1-6 for kettle tabulated

Section III. REPAIR PARTS, SPECIAL TOOLS AND EQUIPMENT

tenance repair parts are listed and illustra TM 5-3895-334-25P. 5-7. Specially Designed (Fabricated) Tools

Equipment No specially designed tools or equipment are re الماغة منا سواغ مناعات الماعات الماعات

operate or	Spring nopeo	(para, 5-19).
operates im-	perly adjusted	(para. 5 15).
properly	or hroken. b. Drive pin	b. Replace drive pin
	sheared.	(para 5-19).
	Sileared.	. Inspect gear and
	1	drive shaft for
	1	wear or damage.
		and replace if
		necessary.
	c. Gears wormer	c. Replace gears
	broken.	(para. 5-19).
	d. Gasket defective.	d. Replace gasket
		(para, 5:19).
	e. Packing	e. Replace packing
	defective.	(para, 5-19).
2. Clutch fails to	a. Worn or damaged	a. Replace shifter
operate or	shifter collar.	collar (para. 5-20).
operates im-		
properly.	b. Worn or damaged	b. Replace wedge sleev
	wedge sleeve.	(para. 5-20).
	c. Lever rollers	c. Replace lever rollers
	worn or damaged.	(para. 5-20).
	d. Driving plate worn	•
	or damaged.	plate (para. 5-20).
3. Gear reducer	a. Seal teaking	u. Replace seal (fig. 5-1
fails to operate	luhricant.	(para, 5-12).
or operates im- properly.	b. Gasket leaking	b. Replace gasket (fig.
property.	Judricant.	5.1) (para. 5-12).
	c. Bearing damaged	c. Replace bearing
	or worn.	(fig. 5-1)(para. 5-12
	d. Gears damaged	d. Replace gears (fig.
	or worn.	5-1) (para. 5-12).
Santing V DEM	OVAL AND INSTALLATION	
Section V. KEM 5-9. Engine	OVAL AND INSTALLATION	OF MAJOR COMPONENTS AND
_		5-11. Electrical System
Refer to TM 5-2805-256-1	4 for engine repair.	Refer to paragraph 3-23 for ele
c 10 F		moval and installation.



- to paragraph 3-26 for leg stands, removal and llation.
- r to figure 3-11 for spring, removal and installa-

. Springs

. Lea Stands

- 5. Reflectors r to paragraph 3-28 for reflector, removal and
- allation. 7. Thermometer
- er to paragraph 3-24 for thermometer, removal installation.
- 8. Pressure Gage er to paragraph 3-30 for pressure gage, removal installation.
- 9. Pump er to paragraph 3-31 for pump, removal and inlation. Disassemble and reassemble pump as wn by figure 3-16.
- 5-22, Bitumen Piping System
  - Refer to figure 3-15, sheet 1, for piping and t valve, removal and installation.

removal and installation.

5-21, Fuel System

disassembly and reassembly.

trol, removal and installation.

valve, removal and installation.

a. Refer to paragraph 3-35a for air pump. and installation. Refer to figure 3-20 for a

b. Refer to paragraph 3-35c for burner a

d. Refer to paragraph 3-35b for pressu

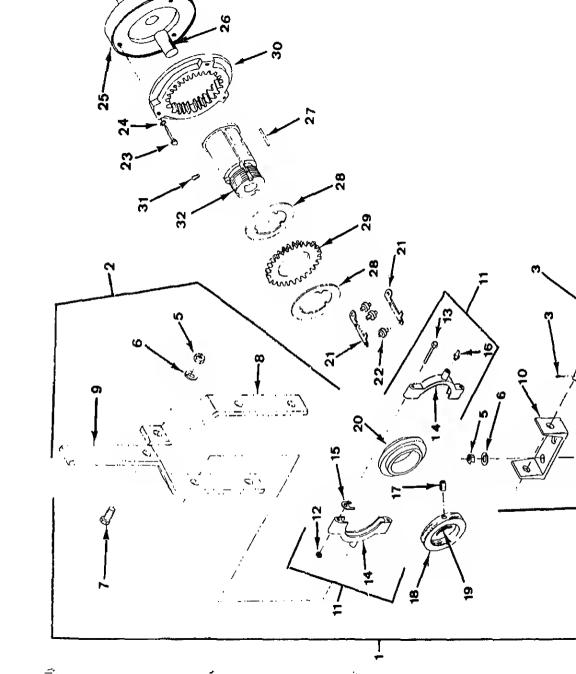
e. Refer to paragraph 3-34e for fuel shut

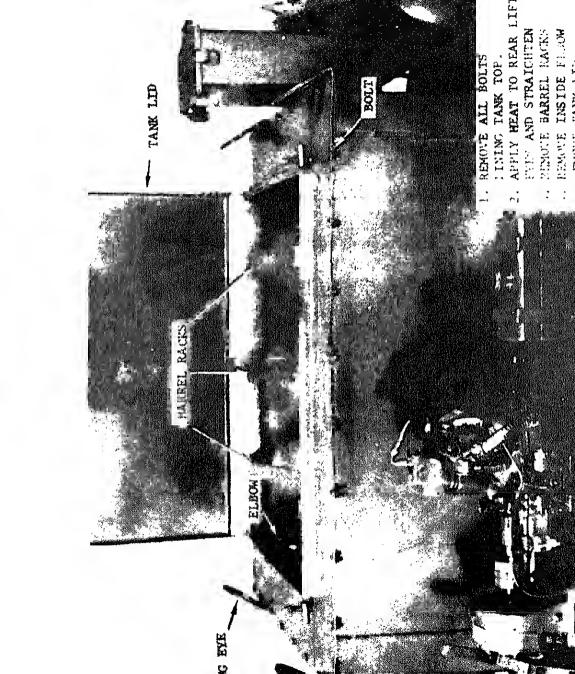
removal and installation. Refer to paragra for burner assembly, disassembly and reasse c. Refer to paragraph 3-35g for thermost

- 5-23. Melt Tank

welding.

- Refer to figure 5-3 for melt tank, remova
- stallation. Repair melt tank by welding 'Caution: Use a hoist or lifting device
- minimum 500-pound lifting capacity whe
- ing and installing melt tank.





ation	
L	Fuels, Lubricants, Oils and Waxes
05-256-12	Military Standard Engine Lubrication Order
95-334-12	Bituminous Kettle Lubrication Order
ing	
3	Painting Instructions for Field Use
enance	
<b>7</b> 0-1	Care and Maintenance of Pneumatic Tires
750	Army Equipment Record Procedures
805-256-14	Operator, Organizational, DS and GS Maintenance Manual, Milita Standard Engine
805-256-24P	Organizational, DS and GS Maintenance Repair Parts and Special To Lists, Military Standard Engine
395-334 <b>-2</b> 5P	Organizational, DS, GS, and Depot Maintenance Repair Parts a Special Tools List, Kettle, Heating, Bituminous
nent and Storage	
-90-1	Administrative Storage of USAMEC Mechanical Equipment
-244-3	Procedures for Destruction of Equipment to Prevent Enemy Use
4	

Hand Portable Fire Extinguishers for Army Users

rotection

00-200-10

appendix lists items which accompany the nous kettle or are required for installation, ion, or operator's maintenance. ieneral asic issue items list is divided into the following asic Issue Items - Section II. A list of items

cope

accompany the bituminous kettle and are reby the operator/crew for installation, opera-: inaintenance. aintenance and Operating Supplies - Section listing of maintenance and operating supplies

ular list of Basic Issue Items, Section II. rurce, Maintenance, and Recoverability Codes Source code, indicates the listed item. Source re: Explanation

llowing provides an explanation of columns in

ed for initial operation.

tenance categories.

xplanation of Columns

Repair parts which are stocked in or supplied from the GSA/DSA or Army supply system, and authorized for use at indicated maintenance categories. Repair parts which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system. Repair parts which are not procured or stocked, but are to be manufactured in indicated maintenance levels.

(2) Maintenance code indicates the lowe gory of maintenance authorized to install th item. The maintenance level code is: Explanation Operator/crew

Explanation

Major assemblies that are procured with PER for initial issue only as exchange assemblies

and GSU level. These assemblies will not b

above DS and GS level or returned to depe

(3) Recoverability code, indicates wheth serviceable items should be returned for recov salvage. Items not coded are expendable. Re ability codes are: Code Explanation Applied to Repair parts (assemblies and com which are considered economically repairable and general support maintenance levels. W

maintenance capability to repair these items

exist, they are normally disposed of at the ( When supply considerations dictate, some of pair parts may be listed for automatic return t for depot level repair as set forth in AR 710-5 so listed, they will be replaced by supply or change basis. Repair parts and assemblies which are economipairable at DSU and GSU activities and which ly are furnished by supply on an exchange basi items are determined by a GSU to be uneconrepairable they will be evacuated to a depot for

tion and analysis before final disposition. High dollar value recoverable repair parts which ject to special handling and are issued on an ebasis. Such repair parts are normally repaired hauled at depot maintenance activities. Repair parts specifically selected for salvage b

mation units because of precious metal conter cal materials, or high dollar value reusable ca castings. b. Federal Stock Number. This column ind

and the martelity of which normally is below that of

units carry individual stock numbers and descriptions, are procured and stocked separately and can be assem-

Parts and assemblies which are not procured or stocked

bled to form the required assembly at indicated main-

Assemblies which are not procured or stocked as such, but are made up of two or more units. Such component

Code

level.

G.

Code

C

R

S

T

U

item name and any additional description of th

the Federal stock number assigned to the iter

will be used for requisitioning purposes. c. Description. This column indicates the F

o. A "V" appoint ty indicates ated (e.g., shir Quantity Fur indicates the quipment.  Illustration. T. 1) Figure Nue illustration:  (2) Item Num	charing in this column in lieu of a that a definite quantity cannot be us, spacers, etc.).  Inished With Equipment. This columntity of an item furnished with this column is divided as follows:  Indicates the figure number in which the item is shown.  Indicates the callout number the item in the illustration.	c. Description. In name and brief description d. Quantity Required column indicates the operating supply its of the equipment.  e. Quantity Required column indicates the for an average 8 hours. This column is column to the column indicates the form and a present the column indicates the form and a present the column indicates the form and a present the column indicates the column indi	ription.  uired for  e quant  em req  ired for  ne estir  rs of or  umn ir	or Initality of equired in the second in the	ial Operated in interest of the control of the cont	erationaintensial operationatives re
_	of Columns in the Tabular					
	nce and Operating	B-5. Federal Supp	ly Cad	e for A	Nanuf	acture
	n III Application. This column identified opplication of each maintenance or	Code	Manu/ac t Tank ar	turer		
	Section II. BASI	C ISSUE ITEMS				<del> </del>
(3) Federal slock	(1) Description		til Unit	(5) Qty	(h) Qiy Nen	illusti
No.	Nef No. & Mfr code	Usable on code	of meas	ın unit	with equip	(A) fig No.
	DA TECHNICAL MANUAL TM 5-3895-334-15		EA		1	
	DA TECHNICAL MANUAL TM 5-2805-256-14	••	EA		1	
	DA LUBRICATION ORDER LO 5-2805-256-12 DA LUBRICATION ORDER		EA		1	
	1 (5 0 0000 00 + 10		I	I	1	1 1

	(2) Poderal Stock number	(5) Description	(4) Quantity required francial	(5) Properties	
i i					
3 2					(1) See C910
		FUEL, GASOLINE: Automotive:			and requisitio
	9130-160-1818(1)	Bulk as follows: 91A Grade DIESEL FIET: 55-001 drum as	1'5 gal	6 gal (3)	(2) See curre
	9140-286-5288(2)	follows: DF-1	20 gal	40 gal (4)	tion and reple
		OIL, LUBRICATING: 1-q1 can			(3) Average
		as follows:			gai per nour or
	9150-265-9433 9150-265-9425	OE-30 OF-10	6/8 qt	8 8	(4) Burner t
			Tho A	(7)	tion is 5 gal pe
ď		GREASE, AUTOMOTIVE AND			operation.
		ARTILLERY: 1-1b can as follows:			
	9150-190-0904(2)	GAA			
		GREASE, FLUG VALVE	•		
	9150-261-8287(2)	4-in. dia stick	1 рох	(5)	
-					

## Section I. INTRODUCTION

required for each maintenance function as need from section II.

ection IV contains supplemental instructions, atory notes and/or illustrations required for cular maintenance function.

Explanation of Columns in Section II roup Number, Column (1). The assembly group imerical group assigned to each assembly in a win breakdown sequence. The applicable asy groups are listed on the MAC (Maintenance tion Chart) in disassembly sequence beginning the first assembly removed in a top-down disbly sequence.

ssembly Group, Column (2). This column contains the first description of the components of each

faintenance Functions, Column (3). This col-

lists the various maintenance functions (A

gh K) and indicates the lowest maintenance

ry authorized to perform these functions. The

ol designations for the various maintenance

nis section provides a general explanation of

intenance and repair functions authorized at

ection II designates overall responsibility for

rformance of maintenance functions on the

ied and item or component. The implementa-

the maintenance functions upon the end item

ponent will be consistent with the assigned

ction III lists the special tools and test equip-

eneral

maintenance levels.

nance functions.

bly group.

ries are as follows:

to add fuel, lubricants, cooling agents, and is desired that elements, such as painting and ting, be defined separately, they may be so lis D — Adjust. To rectify to the extent necestring into proper operating range.

E — Aline. To adjust specified variable of an item to bring to optimum performance.

F — Calibrate. To determine the correction made in the readings of instruments or temperatused in precise measurement. Consist comparison of two instruments, one of what certified standard of known accuracy, to desire the contraction of the contraction of the certified standard of known accuracy, to desire the contraction of the certified standard of known accuracy, to desire the contraction of the certified standard of known accuracy, to desire the contraction of the certified standard of known accuracy, to desire the contraction of the certified standard of known accuracy, to desire the contraction of the certified standard of known accuracy.

adjust any discrepancy in the accuracy of

strument being being compared with the

G - Install. To set up for use in an ope

C — Service. To clean, to preserve, to char

environment such as an emplacement, site, or H — Replace. To replace unserviceable its serviceable like items.

I — Repair. Those maintenance operation sary to restore an item to serviceable of

standard.

failure. Repair may be accomplished at each of maintenance.

J — Overhaul. Normally, the highest d maintenance performed by the Army in minimize time work in process is consistent.

through correction of material damage or a

quality and economy of operation. It consists maintenance necessary to restore an item to only ly serviceable condition as prescribed by main standards in technical publications for each equipment. Overhaul normally does not reitem to like new, zero mileage, or zero hour con-

K - Rebuild. The highest degree of mater

C-3. Explanation of Columns in Section III

a. Reference Code. This column consists of a number and a letter separated by a dash. The number references the T&TE requirements column on the

MAC. The letter represents the specific maintenance function the item is to be used with. The letter is

representative of columns A through K on the MAC.

b. Maintenance Category. This column shows the lowest level of maintenance authorized to use the special tool or test equipment.

ber of tools and test equipment.

C-4. Explanation of Calumns in Se

a. Reference Code. This column letters separated by a dash, both of ences to section II. The first letter re-

(5) and the second letter references function, column (3), A through K.

b. Remarks. This column lists inf nent to the maintenance function be as indicated on the MAC, section II.

### Section II. MAINTENANCE ALLOCATION CHART

(1)	(/i Functional group					Mainter	(I) sance fun	ctions			_		To
	L ANCITORE LEGAL	A	8	ľ	D	Ł	ř	G	н	ľ	J	К	990
Graup No.		laspect	Te i	Service	Adimer	Aliae	Celibrate	late.	Replace	Reper	Overhaul	Rebuild	
		-	, <u>, , , , , , , , , , , , , , , , , , </u>	<i>3</i> 5	*	₹	3		2	à	8	8	
01	ENGINE	[			ļ				l	ļ			
0100	Engine Assembly				1				ľ				
	Engine, gasoline	c	0	С	С				0	F			1
03	FUEL SYSTEM						1		Ĭ	1			
0306	Tank, Lines, Filtings	1	<b>\</b>	1	1	1	\		\ 	1			1
	Cap, fuel tank	С		١.					c				
	Lines, fue)	C		1	] .	<b>.</b>	]		lŏ	)			Ì
0309	Fuel Filters	C	ļ	l	Į	<b>.</b> .	[ .	l	lŏ	l			(
06	ELECTRICAL SYSTEM			1					1				[
0609	Head, Tail & Marker Lights,	1	ļ		ļ	ļ	<u> </u>		ļ	4			ļ
	Lamp Bulb							١.	0				1
	Lamp assembly, tail &	1	1		1	1	{	}		}			}
	marker	c				l		Í	٥		i		<u> </u>
0613	Hull or Chassis Wiring Harness								]				
08	Trailer coupling cable POWER TRANSFER	С					,		0	0			
0800	Power Transfer, AY	}							<u> </u>			:	

-														
		Inequat	Tex	Survice	A46=1	Alies	Colliberate	Inchil	Rophace	Bepein:	Overhand	Referible		
	Output Shaft, Main Shaft Bearings Gaskets & seals Gear & shaft WHEELS AND TRACKS Wheel Assembly Cup & cone bearings Seals, grease	F F COO			. 0				F F O O					
•	Tires, Tubes FRAME Pintles and Towing Attachments Safety chain Landing Gear; Leveling Jacks	С		<b>C</b>	C		 		0	0			<u></u>	
	Pin, height adjustment SPRINGS & SHOCK ABSORBERS Rear Springs Bolt, shackle MISCELLANEOUS BODY HULL & ACCESSORY ITEMS	0		0					F O					
i	Mirrors, Reflectors, Personnel Heaters, Defrosters, Wipers, Airhorn, Reflector Assembly GAGES (NON-ELECTRICAL) WEIGHING & MEASURING DEVICES	0							0					
:	Temperature Gages Thermometer Pressure Gages Gage, pressure, dial	С				e			0		ļ	!		
<b>,</b>	indicating PUMPS (EXCLUDE ENGINE PUMPS) Pump Assembly	С		С			·		0	F				
,	Gasket, housing	С		Ü					O F					

	Inspect	Ĩ	Service	74 P	4	California	1	Paplace	Repair	Overheed	Betwild	
Fuel Tank			-									
Pump assembly air Thermostat, operat	ing		C					0	0		İ	}
& safety		0	0					0		ł	(	
Regulator, pressure	I .		0	c				0		ļ	ļ	ļ
Valve, relief pressu	re		ŏ	.		::	1	ŏ		ĺ	i '	
Valve, assembly, sa		1					}	0		]		]
Line, air	1 -		)			· · ·	)	0	) ·			\ · }
Valve, fuel shutoff			c				{	0	١.	}	}	
Fuel tank			Č		<b>,</b>			o		'	ļ	
Cap assembly, fill. CONCRETE & ASPH EQUIPMENT			C		 			C				
(Mixers; Pavers; Finishera, etc.)	Spreaders;								ļ			İ
Material Spray Bar			l c			<b>∤</b> .		0	0	ļ	ļ	
Coupling, quick a			ĺ					0	ł		ļ	[
Cock	I 1	1						0		İ	i	
Tanks, Vaives, etc.		1	C			\ ··		C	F	)	}	<u>'</u>
Link, fusible			"				1	0	1	\ \	1	1
Valve, three-wa		-	C		{			0	}		1	}
Valve, three-wa			C					0		(		
Pipe and fittings			ŀ	0		1		0	0	j		
Shell assembly	_		] ,	<u> </u>	] :			) <u> </u>	F			
Vat. melting	-		C			1	1	Н	F			<u>'</u>
Coupling, quick Hose, spray				 				0				
Section II	I. SPECIAL T	00L	AND:	SPEC	IALT	EST I	EQUI	PME	NT R	EQU	REM	ENTS
Reference	Maintenance category				N	- Chancle	ture					Tool number
	С		Cle	aning	Needle	:					TK-	002 (037

Section IV. REMARKS

f valve mostatic control s  B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines	3-24 3-31 2-11, 3-35 3-35 3-25 3-23 3-35	3-19 3-14 3-25 2-9, 3-19 3-32 3-19 3-8 3-32
ings, wheel h assembly I valve mostatic control  S  B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-24 3-31 2-11, 3-35 3-35 3-25 3-23 3-35	3-14 3-25 2-9, 3-19 3-32 3-19
h assembly f valve mostatic control s  B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-24 3-31 2-11, 3-35 3-35 3-25 3-23 3-35	3-14 3-25 2-9, 3-19 3-32 3-19
f valve mostatic control   B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-31 2-11, 3-35 3-35 3-25 3-23 3-35	3-25 2-9, 3-19 3-32 3-19 3-8
B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	2-11, 3-35 3-35 3-25 3-23 3-35	2-9, 3-19 3-32 3-19 3-8
B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-35 3-25 3-23 3-35	3-32 3-19 3-8
B  ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-25 3-23 3-35	3-19 3-8
ut lamp assembly lamp replacement assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-23 3-35	3-8
assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-35	
assembly fuel hose assembly system components: er fuel tank and hand pump assembly ral y valve assembly, fuel tank cap, gages and air lines mostat  C  ties, data , safety	3-35	
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